S. Hrg. 102-156

# WESTERN DROUGHT RELIEF LEGISLATION

# HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDRED SECOND CONGRESS

FIRST SESSION

ON

## S. 404

TO AUTHORIZE THE SECRETARY OF THE INTERIOR TO ENTER INTO CONTRACTS PURSUANT TO THE WARREN ACT (ACT OF FEBRUARY 21, 1911, 36 STAT. 925, 43 U.S.C. 523 ET SEQ.) FOR DOMESTIC, MUNICIPAL, FISH AND WILDLIFE, AND OTHER BENEFICIAL PURPOSES, AND FOR OTHER PURPOSES

## S. 586

TO PROVIDE AUTHORITY TO THE SECRETARY OF THE INTERIOR TO UNDERTAKE CERTAIN ACTIVITIES TO REDUCE THE IMPACTS OF DROUGHT CONDITIONS, AND FOR OTHER PURPOSES

## S. 711

TO AUTHORIZE THE SECRETARY OF THE INTERIOR TO UNDERTAKE CERTAIN ACTIVITIES TO REDUCE THE IMPACTS OF DROUGHT CONDITIONS, AND FOR OTHER PURPOSES

## H.R. 355

TO PROVIDE EMERGENCY DROUGHT RELIEF TO THE RECLAMATION STATES, AND FOR OTHER PURPOSES

MAY 15, 1991

Printed for the use of the
Committee on Energy and Natural Resources

U.S. GOVERNMENT PRINTING OFFICE
44-258 ⇆ WASHINGTON : 1991

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0-16-035436-6

S311-61.

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# WESTERN DROUGHT RELIEF LEGISLATION

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WEDNESDAY, MAY 15, 1991

U.S. SENATE,
SUBCOMMITTEE ON WATER AND POWER,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
*Washington, DC.*

The subcommittee met, pursuant to notice, at 2 p.m. in room SD-366, Dirksen Senate Office Building, Hon. Bill Bradley, presiding.

## OPENING STATEMENT OF HON. BILL BRADLEY, U.S. SENATOR FROM NEW JERSEY

Senator BRADLEY. The committee will come to order. The Subcommittee on Water and Power will consider four bills today, which are intended to help drought-stricken areas of the west. I hope to be able to move drought legislation through this committee and through Congress in a timely fashion.

I expect to use the House bill, H.R. 355, as a vehicle for markup so that we can enter into conference with the House as soon as possible on this legislation. Let me state briefly my perspective on drought legislation.

It certainly makes sense to insure that the Secretary of Interior has adequate authorities to plan for and respond to natural calamities which affect the water supply used by reclamation projects. It also makes sense to me that the Secretary should have authority and direction to address the environmental effects caused by reclamation project operations during drought years, and during non-drought years, for that matter.

The subcommittee will use this hearing to determine whether the Secretary actually needs additional drought authorities. If so, I hope to be able to provide those authorities.

In thinking about these bills, I am left with a fundamental question for my colleagues on the committee, and for the witnesses as well. That question is whether there is a meaningful difference between a drought and the situation where a State or region's water supply is inadequate to meet present demands. Is not a water shortage a water shortage, regardless of the cause? Should not the same policies apply in either case?

With these thoughts in mind, I strongly support amendment of the Warren Act, which I know many members of the subcommittee do as well. That amendment would grand the Secretary additional flexibility in the use of reclamation facilities in California, a State where demand for water is outstripping the supply, and which continues to grow at about 500,000 people a year. Can there ever again not be a drought in California? That, I think, is what should orient our views about this legislation and changes generally.

I am somewhat concerned that in our efforts to help growers and others cope with water shortages, we might have the effect of making water cheaper during droughts. Should not a resource cost more, not less, when it is in short supply? Is it not possible that the prospect of a Federal bail-out might encourage less than conservative use of stored water during the early years and periods of a drought?

I look forward to hearing from our witnesses on these questions and on the merits of the several bills that are before this subcommittee today. During the course of today's hearing, there will be additional Senators who will be sitting in the chair. There is an amendment on the floor of the Senate that I have responsibility for, but I will be here for as much of the hearing as I possibly can.

[The prepared statement of Senator Bradley and the texts of the bills follow:]

### PREPARED STATEMENT OF HON. BILL BRADLEY, U.S. SENATOR FROM NEW JERSEY

The Subcommittee on Water and Power will consider four bills today which are intended to help drought-stricken areas of the West. I hope to be able to move drought legislation through this Committee and through Congress in a timely fashion. I expect to use the House bill, H.R. 355, as a vehicle for mark-up so that we can enter into conference with the House as soon as possible.

Let me state briefly my perspective on drought legislation. It certainly makes sense to ensure that the Secretary of the Interior has adequate authorities to plan for and respond to natural calamities which affect the water supply used by Reclamation projects. It also makes sense to me that the Secretary should have authority and direction to address the environmental effects caused by Reclamation project operations during drought years and otherwise. The Subcommittee will use this hearing to determine whether the Secretary actually needs additional drought authorities. If so, I hope to be able to provide them.

In thinking about these bills, I am left with a fundamental question for my colleagues and our witnesses, namely, whether there is a meaningful difference between a "drought" and the situation where a State or region's water supply is inadequate to meet present demands. Isn't a water shortage a water shortage regardless of the cause? Shouldn't the same policies apply in either case?

With these thoughts in mind, I strongly support amendment of the Warren Act to grant the Secretary additional flexibility in the use of Reclamation facilities in California—a State where demand for water is outstripping the supply and which continues to grow by half a million people each year. Can there ever again not be a drought in California?

I am somewhat concerned that, in our efforts to help growers and others cope with water shortages, we might have the effect of making water cheaper during droughts. Shouldn't a resource cost more, not less, when it is in short supply? Isn't it possible that the prospect of a Federal bail-out might encourage less than conservative use of stored water during the early years of a drought?

I look forward to hearing from our witnesses on these questions and on the merits of the bills.

II

102D CONGRESS
1ST SESSION

# S. 404

To authorize the Secretary of the Interior to enter into contracts pursuant to the Warren Act (Act of February 21, 1911, 36 Stat. 925, 43 U.S.C. 523 et seq.) for domestic, municipal, fish and wildlife, and other beneficial purposes, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

FEBRUARY 7 (legislative day, FEBRUARY 6), 1991

Mr. SEYMOUR (for himself and Mr. CRANSTON) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

# A BILL

To authorize the Secretary of the Interior to enter into contracts pursuant to the Warren Act (Act of February 21, 1911, 36 Stat. 925, 43 U.S.C. 523 et seq.) for domestic, municipal, fish and wildlife, and other beneficial purposes, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the Secretary of the Interior is authorized to enter into contracts, pursuant to the Act of February 21, 1911 (36 Stat. 925, 43 U.S.C. 523 et seq.), with political subdivisions of the State of California for the impounding, storage, and carriage of water for domestic, municipal, fish and wildlife, and other beneficial purposes from any facilities associated with the Central Valley Project, Cachuma Project, and the Ventura River Project, California.

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II

102D CONGRESS
1ST SESSION

# S. 586

To provide authority to the Secretary of the Interior to undertake certain activities to reduce the impacts of drought conditions, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

MARCH 7 (legislative day, FEBRUARY 6), 1991

Mr. BRADLEY (by request) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

# A BILL

To provide authority to the Secretary of the Interior to undertake certain activities to reduce the impacts of drought conditions, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

## SECTION 1. SHORT TITLE.

This Act may be referred to as the "Reclamation Drought Act of 1991".

## SEC. 2. GENERAL AUTHORITY.

The Secretary of the Interior (hereinafter in this Act referred to as the "Secretary"), acting under the authorities of the Federal reclamation laws (the Act of June 17, 1902 (32 Stat. 388), and Acts supplementary thereto and amendatory thereof) and other appropriate authorities, is authorized to—

(a) perform studies to identify opportunities to augment, make use of, or conserve water supplies available to Federal reclamation projects and Indian water resource developments, and for fish and wildlife habitat, maintenance and enhancement;

(b) consistent with existing contractual arrangements and applicable State and Federal law, undertake management and conservation activities that will reduce or can be expected to reduce the impacts of temporary drought conditions;

(c) provide information or technical assistance to willing buyers in their purchase of available water supplies from willing sellers and the delivery of such water consistent with applicable State and Federal law; and

(d) prepare drought contingency plans for Federal reclamation projects, which shall incorporate water conservation measures in the operations of non-Federal recipients of water from Federal reclamation projects, and enter into agreements with other Federal agencies, States, local governments, Indian Tribes, and such other public and private entities and individuals as may be necessary for the purpose of carrying out the provisions of this Act.

### SEC. 3. AVAILABILITY OF WATER AND FACILITIES ON A TEMPORARY BASIS.

(a) CONTRACTUAL AUTHORITY.—For the purpose of reducing impacts of temporary drought conditions, the Secretary may make available, by contract, water, and the use of facilities at Federal reclamation projects for the storage or conveyance of project or non-project water, for use both within and outside an authorized project service area.

(b) CONTRACTUAL REQUIREMENTS.—Any contract signed under this Act shall provide that—

(1) the price of such water or for the use of facilities shall be at least sufficient to recover all Federal operation and maintenance and administrative costs, and an appropriate share of capital costs, including interest on project irrigation and municipal and industrial water, except that, for project water delivered to non-project landholdings in excess of nine hundred and sixty acres, the price shall be full cost (as defined in subsection 202(3)(a) of Public Law 97–293, 96 Stat. 1263; 41 U.S.C. 390bb): *Provided*, That, the interest rate used for computing interest during construction and interest on the un-

paid balance of the capital costs shall be at a rate to be determined by the Secretary of the Treasury based on average market yields on outstanding marketable obligations of the United States with remaining periods to maturity of one year occurring during the last month of the fiscal year preceding the date of execution of the temporary contract;

(2) the lands not now subject to Federal reclamation laws that receive temporary irrigation water supplies under this section shall not become subject to the acreage limitations of Federal reclamation laws because of the delivery of both temporary water supplies; and

(3) the lands that are subject to the acreage limitations of Federal reclamation laws shall not be exempted from those limitations because of the delivery of such temporary water supplies.

(c) TREATMENT OF CONTRACTS.—(1) No contract entered into by the Secretary pursuant to this Act shall be a "contract" as that term is used in sections 203(a) and 220 of the Reclamation Reform Act of 1982 (Public Law 97–293), as amended, and sections 105 and 106 of Public Law 99–546.

(2) Any existing contract that is amended by mutual agreement to allow a contractor to carry out the provisions

of this section shall be a temporary amendment only, not to exceed one year from date of execution. Any such amendment shall not be considered a new and supplemental benefit for purposes of the Reclamation Reform Act, or affect any pre-existing rights.

(d) DURATION OF CONTRACTS.—Contracts entered into by the Secretary pursuant to this section shall terminate one year from the date of execution or upon a determination by the Secretary that water supply conditions no longer warrant that such contracts remain in effect, whichever occurs first.

(e) FISH AND WILDLIFE.—The Secretary may make available, on a temporary basis, water for the purpose of reducing impacts to fish and wildlife resources caused by temporary drought conditions.

## SEC. 4. REPORT.

The Secretary shall submit an annual report to the President and Congress on expenditures and accomplishments under this Act.

## SEC. 5. IMPLEMENTATION OF DROUGHT RELATED ASSISTANCE.

The Secretary, after consultation with the Governor or Governors of the affected State or States, may implement the authorities granted herein for reducing impacts of temporary drought conditions only after a determination by the Secretary that such actions are merited.

### SEC. 6. ADMINISTRATIVE PROVISIONS.

The Secretary is hereby authorized to promulgate such rules and regulations as may be necessary for the purpose of carrying out the provisions of this Act.

### SEC. 7. FEDERAL RECLAMATION LAWS.

This Act shall constitute a supplement to the Federal reclamation laws.

### SEC. 8. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

### SEC. 9. SAVINGS CLAUSE.

Nothing in this Act shall be construed as limiting or restricting the power and authority of the United States or—

(a) as affecting in any way any law governing appropriation or use of, or Federal right to, water on Federal lands, or the right of any Indian Tribe to use its water for whatever purpose it deems appropriate, including fish and wildlife purposes, or the right of a Tribe to buy or sell water, or to affect any right enjoyed under license, lease or other authorization from an Indian Tribe;

(b) as expanding or diminishing Federal, Tribal or State jurisdiction, responsibility, interests, or rights in water resource development or control;

(c) as displacing, superseding, limiting, or modifying any interstate compact or the jurisdiction or responsibility of any legally established joint or common agency of two or more States or of two States and the Federal Government;

(d) as affecting in any way the applicability of the National Environmental Policy Act (42 U.S.C. 4321 et seq.), or the Endangered Species Act (16 U.S.C. 1531 et seq.), or as otherwise superseding, modifying, or repealing, except as specifically set forth in this Act, existing law applicable to the various Federal agencies; or

(e) as affecting the water rights of any Indian Tribe or Tribal licensee, permittee, or lessee, or diminishing the Indian trust responsibility of the United States.

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II

102D CONGRESS
1ST SESSION

# S. 711

To authorize the Secretary of the Interior to undertake certain activities to reduce the impacts of drought conditions, and for other purposes.

---

IN THE SENATE OF THE UNITED STATES

MARCH 20 (legislative day, FEBRUARY 6), 1991

Mr. SEYMOUR introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

# A BILL

To authorize the Secretary of the Interior to undertake certain activities to reduce the impacts of drought conditions, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

## SECTION 1. SHORT TITLE.

This Act may be cited as the "Reclamation Drought Relief Act of 1991".

## SEC. 2. DEFINITIONS.

For the purposes of this Act—

(1) the term "contingency plan" means a drought contingency plan prepared pursuant to section 12;

(2) the term "Federal reclamation project" or "project" means—

(A) a project constructed or funded under Federal reclamation law; and

(B) a project having an approved loan under the Small Reclamation Projects Act of 1956 (43 U.S.C. 422a et seq.);

(3) the term "irrigation" means the use of water for the commercial production of crops or livestock; and

(4) the term "Secretary" means the Secretary of the Interior.

## SEC. 3. CONDITION ON AVAILABILITY OF ASSISTANCE.

(a) CONDITION.—On and after the date that is 2 years after the date of enactment of this Act, the Secretary may exercise authority under this Act only in relation to deliveries of water in a portion of a State for which the State has completed the elements of a contingency plan for which the State is responsible, as identified pursuant to section 12(b).

(b) IMPLEMENTATION OF AUTHORITY CONSISTENT WITH PLANS.—After a contingency plan is adopted for a State or portion of a State, the Secretary shall exercise authority under this Act in a manner that is consistent with the contingency plan.

(c) SUSPENSION OF AUTHORITY.—The Secretary's authority under this Act with respect to a State or portion of a State in which project water is delivered shall be suspended during the period beginning on the date that is 2 years after the date of enactment of this Act and ending on the date that the State completes the elements of a contingency plan for which the State is responsible, as identified pursuant to section 12(b).

## SEC. 4. WATER RESOURCE MANAGEMENT ACTIVITIES.

In order to alleviate the adverse impacts of drought conditions that the Secretary determines to be of a temporary nature, the Secretary—

(1) may, in cooperation with State agencies, establish water banks through which the Secretary, State agencies, and project and non-project water users may buy and sell water consistent with State law;

(2) may, consistent with State and Federal law, consistent with existing contractual arrangements or with concurrence of affected contractors when a proposed action may conflict with existing contracts, and in cooperation with appropriate State agencies, undertake water conservation and management activities (including modification of project operations)

that can be expected to reduce the impacts of temporary drought conditions;

(3) may allow temporary voluntary transfers of project water supplies from existing uses or users to other uses or users located inside or outside a project service area for such purposes as the Secretary deems appropriate, consistent with State law;

(4) may allow temporary use of project facilities to store and convey nonproject water for municipal and industrial or other beneficial uses inside or outside a project service area;

(5) may allow the use of water from dead or inactive reservoir storage or increased use of groundwater resources for temporary water supplies;

(6) may provide temporary water supplies for the purpose of reducing adverse impacts to fish and wildlife resources caused by temporary drought conditions; and

(7) may make or finance the making of minor structural modifications to Federal project facilities that can be expected to reduce adverse impacts of drought on recreation, fish, wildlife, and other authorized project purposes.

**SEC. 5. PURCHASE OF WATER.**

(a) IN GENERAL.—Consistent with State law, the Secretary may purchase or facilitate the purchase of water, including water made available by Federal reclamation project contractors, from willing sellers.

(b) REDUCTION OF CONSUMPTION.—Water purchased under subsection (a)—

(1) shall be water that is made available through conservation or other means by which a seller (including a seller that is an Indian tribe) has reduced its actual consumption of water; and

(2) shall not include water that represents the excess of the amount of water in which the seller has rights over the amount of water that the seller historically has actually consumed.

(c) TERMS.—(1) Water shall be purchased from willing sellers at a negotiated price and shall be made available on a temporary basis on the terms described in section 6.

(d) SALES OF WATER BY OTHER THAN THE SECRETARY.—(1) An agreement for purchase of project water supplies by a purchaser other than the Secretary shall be subject to the approval of the Secretary.

(2) An agreement described in paragraph (1) shall specify the party that will be responsible for payments

owed to the United States for the purchased project water supplies.

### SEC. 6. CHARGES FOR TEMPORARY WATER SUPPLIES.

(a) WATER FOR IRRIGATION PURPOSES.—(1) The price for delivery of temporary irrigation water supplies provided from a Federal reclamation project or obtained from a non-project source and delivered through or stored in Federal reclamation project facilities pursuant to this Act shall be sufficient to recover all Federal operation, maintenance, and capital costs allocable to the temporary supply, as determined by the Secretary, without including interest.

(2) For water delivered to a landholding in excess of 960 acres of class I lands or the equivalent for a qualified recipient and 320 acres of class I lands or the equivalent for a limited recipient, the cost of the water shall be full cost for acres in excess of 960 acres (or equivalent) or 320 acres (or equivalent), as appropriate.

(3) For the purpose of this subsection, the terms "full cost", "landholding", "limited recipient", and "qualified recipient" have the meanings stated in section 202 (3), (6), (7), and (9), respectively, of the Reclamation Reform Act of 1982 (43 U.S.C. 290bb (3), (6), (7), and (9)).

(b) WATER FOR NON-IRRIGATION PURPOSES.—(1) Subject to subsection (c), the price for delivery of temporary water supplies provided from a project source or obtained from a non-project source and delivered through or stored in Federal reclamation project facilities for purposes other than irrigation pursuant to this Act shall be sufficient to recover—

(A)(i) in the case of project water, all Federal operation, maintenance, and capital costs allocable to the temporary supply as determined by the Secretary; and

(ii) in the case of non-project water, the costs described in clause (i) plus the purchase cost of the water; and

(B) interest as appropriate pursuant to Federal reclamation law.

(2) The interest rate used for computing interest during construction and the interest rate used for computing interest on the unpaid balance of the capital costs shall be the rate determined by the Secretary of the Treasury based on average market yields on outstanding marketable obligations of the United States with remaining periods to maturity of 1 year occurring during the last month of the fiscal year preceding the date of execution of the temporary contract.

(c) NON-REIMBURSEMENT.—All funds expended by the Secretary pursuant to this Act for the purchase of water or for acquisition of entitlement to water from any available source, and for the the delivery of such water, for the purpose of mitigating damages to non-private fish and wildlife resources caused by drought conditions, shall be nonreimbursable under the Federal reclamation law.

### SEC. 7. ACREAGE LIMITATION PROVISIONS OF RECLAMATION LAW.

(a) LANDS SUBJECT TO RECLAMATION LAW ON DATE OF ENACTMENT.—Lands that are subject to the acreage limitation provisions of Federal reclamation law on the date of enactment of this Act shall not be exempted from those limitations because of the delivery of temporary water supplies pursuant to this Act.

(b) LANDS NOT SUBJECT TO RECLAMATION LAW ON DATE OF ENACTMENT.—Lands that are not subject to Federal reclamation laws on the date of enactment of this Act that receive temporary irrigation water supplies pursuant to this Act shall not become subject to the acreage limitation provisions of Federal reclamation law because of the delivery of such temporary water supplies.

### SEC. 8. LOANS.

(a) IN GENERAL.—The Secretary may make loans for—

(1) the purchase of interim water supplies;

(2) the making of minor structural modifications or additions to facilities; and

(3) other activities,

for the prevention or mitigation of the adverse effects of drought.

(b) QUALIFYING ACTIVITIES.—The activities that may qualify for a loan under subsection (a)(3) include changes from water intensive flood irrigation systems to water conserving low-volume drip or sprinkler systems.

(c) TERMS AND CONDITIONS.—Loans under subsection (a)—

(1) shall be made available under such terms and conditions as the Secretary deems appropriate; and

(2) shall be repaid under terms and conditions that are consistent with the Federal reclamation law and policy.

**SEC. 9. DEFERMENT OF PAYMENTS.**

(a) IN GENERAL.—The Secretary may defer the payment of all or part of any installments or charges on obligations under a contract entered into under Federal reclamation law (including the Small Reclamation Projects Act of 1956 and this Act) or a loan made pursuant to section 8, including interest and operation and maintenance costs, owed to the United States, as the Secretary deems necessary due to financial hardship caused by drought.

(b) REPAYMENT OF DEFERMENTS.—(1) Payment of an amount that is deferred under subsection (a) shall commence during the calendar year following the year in which the Secretary announces the end of the drought conditions creating the financial hardship that was the reason for the deferment.

(2)(A) Payment of the full amount of a deferment made under subsection (a) for obligations associated with the construction and utilization of project facilities for irrigation water shall be made without interest within a time that is consistent with the water users' ability to pay, as determined by the Secretary.

(B) Payment of the full amount of a deferment made under subsection (a) for obligations other than those described in subparagraph (A) shall be completed not later than 10 years after the date that the first payment is due to be made, with interest at a rate to be established in accordance with section 6(b)(2).

**SEC. 10. CONTRACTS.**

(a) RULE OF CONSTRUCTION.—A contract entered into by the Secretary pursuant to this Act shall not be deemed to be a "contract" within the meaning of section 203(a) or 220 of the Reclamation Reform Act of 1982

(43 U.S.C. 390cc, 390tt) or section 105 or 106 of Public Law 99-546 (100 Stat. 3051).

(b) TERMINATION OF CONTRACTS FOR TEMPORARY WATER DELIVERIES.—A contract entered into by the Secretary for temporary water deliveries pursuant to this Act shall terminate on the earlier of—

(1) the date that is 1 year after the date of its execution; or

(2) the date on which the Secretary determines that water supply conditions no longer warrant continuance of the contract.

(c) EFFECT OF CONTRACT AMENDMENTS.—(1) Except for an amendment that constitutes an agreement described in subsection (d), an amendment to a contract in existence on the date of enactment of this Act that is made to allow a contractor to carry out a provision of this Act shall remain in effect no longer than 1 year.

(2) An amendment described in paragraph (1) shall not be considered—

(A) to be a supplemental or additional benefit for the purposes of section 203(a)(2) of the Reclamation Reform Act of 1982 (43 U.S.C. 390cc(a)(2)) or a new contract or amendment to a contract for the purposes of section 105 or 106 of Public Law 99-546 (100 Stat. 3051); or

(B) to affect any right in existence on the date of enactment of this Act.

(d) TERMINATION OF AGREEMENTS FOR LOANS AND DEFERMENTS.—An agreement entered into by the Secretary pursuant to this Act for a loan or for a deferment of payment shall terminate when the repayment provisions of the agreement have been satisfied.

### SEC. 11. NONAPPLICATION OF OTHER LAW.

(a) IN GENERAL.—An action taken pursuant to this Act during calendar 'year 1991 is taken in response to emergency conditions and—

(1) shall be taken without undue delay;

(2) shall not be considered to be a major Federal action significantly affecting the quality of the human environment for the purposes of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.); and

(3) shall not be subject to the requirements or conditions of sections 3504 and 3507 of title 44, United States Code.

(b) CONSIDERATION OF ADVERSE EFFECT.—Notwithstanding subsection (a)(2), in evaluating activities during calendar year 1991 for implementation of this Act, the Secretary shall take into consideration any adverse effect that an action proposed to be taken during calendar year 1991 may have on existing lawful uses of water and on fish and wildlife resources or other instream beneficial uses.

### SEC. 12. DROUGHT CONTINGENCY PLANS.

(a) IN GENERAL.—By no later than the date that is 2 years after the date of enactment of this Act, the Secretary, utilizing the resources of the Department of the Interior and in consultation and cooperation with other appropriate Federal and State officials, Indian tribes, public, private, and local entities, shall prepare cooperative drought contingency plans for the prevention or mitigation of adverse effects of drought.

(b) IDENTIFICATION OF RESPONSIBILITIES.—A contingency plan shall identify—

(1) the plan elements that pertain exclusively to the responsibilities and obligations of the Secretary pursuant to Federal reclamation law in general and for each specific Federal reclamation project, which plan elements shall be the responsibility of the Secretary to prepare; and

(2) the plan elements that pertain to projects, purposes, or activities that are not constructed, financed, or otherwise governed by Federal reclamation law, which plan elements shall be the responsibility of the State to prepare.

(c) CONTENTS.—(1) A contingency plan shall establish criteria specifying when and under what circumstances specific elements of the contingency plan may be implemented and how available water supplies are to be allocated.

(2) All drought relief activities authorized in this Act shall be considered for inclusion in a contingency plan, and additional measures may be included as determined to be appropriate by participating parties.

(d) DATA COLLECTION AND WATER SUPPLY FORECASTING.—The Secretary may work with other Federal and State agencies to improve hydrologic data collection systems and water supply forecasting techniques to provide more accurate and timely warning of potential drought conditions and drought levels that would trigger the implementation of a contingency plan.

(e) COMPLIANCE WITH LAW.—A contingency plan and plan elements shall comply with all requirements of Federal law, including the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), and with State water law.

(f) PERIODIC REVIEW.—(1) A contingency plan shall be reviewed periodically to ensure its adequacy to respond to changing conditions from time to time, and shall be modified accordingly.

(2) If a contingency plan is implemented for more than 3 consecutive years, the plan shall be reviewed by the Secretary to determine the need for and means of meeting water supply demands.

(g) REIMBURSEMENT OF COSTS.—Incremental operation costs incurred by the Secretary for the delivery of water under a contingency plan shall be reimbursable by the recipients, except that incremental contingency plan administrative costs incurred by the Secretary shall be nonreimbursable.

### SEC. 13. CONSISTENCY WITH STATE LAW.

All measures implemented by the Secretary pursuant to the provisions of this Act pertaining to the diversion, storage, use, or transfer of water shall be consistent with State law.

### SEC. 14. SALT WATER INTRUSION.

(a) IN GENERAL.—As necessary to protect and improve water quality and to protect fishery resources in the Sacramento-San Joaquin Delta, California, including the consideration of barriers or operations for proper hydraulics to maintain benefits for salmon in the San Joaquin River, the Secretary may, under a cooperative agreement with the State of California, construct such temporary barriers and take other cooperative actions with the State of California as may be necessary to prevent salt water intrusion in the delta or improve water levels and circulation conditions in the delta.

(b) NONREIMBURSEMENT.—Federal expenditures for activities described in subsection (a) shall be nonreimbursable.

## SEC. 15. TECHNICAL ASSISTANCE AND TRANSFER OF PRECIPITATION MANAGEMENT TECHNOLOGY.

(a) TECHNICAL ASSISTANCE.—(1) The Secretary may provide technical assistance for drought contingency planning in—

(A) a State other than a State that is named in the first section of the Act of June 17, 1902 (43 U.S.C. 391);

(B) the District of Columbia;

(C) Puerto Rico;

(D) the Republic of the Marshall Islands;

(E) the Federated States of Micronesia;

(F) the Trust Territory of the Pacific Islands; and

(G) upon termination of the Trusteeship, the Republic of Palau.

(2) Funds for drought contingency planning activities under this subsection shall be advanced to the Secretary by those requesting assistance.

(b) TECHNOLOGY TRANSFER.—(1) The Secretary may conduct a precipitation management technology transfer program to help alleviate problems caused by precipitation variability and droughts in the West, as part of a balanced long-term water resources development and management program.

(2) In consultation with State and local water, hydropower, water quality, and instream flow interests, areas shall be selected for conducting cost-shared field studies to validate and quantify the potential for appropriate precipitation management technology to augment stream flows.

(3) Validated technologies shall be transferred to non-Federal interests for operational implementation.

## SEC. 16. RECLAMATION DROUGHT RESPONSE FUND.

(a) ESTABLISHMENT.—There is authorized to be established in the Treasury of the United States a Reclamation Drought Response Fund, which shall be available to pay expenses that the Commissioner of Reclamation determines are necessary to carry out this Act.

(b) AMOUNTS TO BE PAID INTO FUND.—(1) The Secretary may pay into the Reclamation Drought Response Fund the excess of the proceeds of the sale of water pursuant to this Act over the costs described in section 6 (a) and (b).

(2) The Secretary shall seek to establish and maintain in the Reclamation Drought Response Fund a minimum of $10,000,000.

### SEC. 17. REPORTS.

The Secretary shall submit an annual report to the President and Congress on expenditures and accomplishments under this Act.

### SEC. 18. AUTHORITY OF SECRETARY.

The Secretary may perform any and all acts and promulgate such regulations as are necessary and proper for the purpose of implementing this Act.

### SEC. 19. EFFECT ON OTHER LAWS.

Nothing in this Act shall be construed as—

(1) limiting or restricting the power and authority of the United States;

(2) affecting any law governing appropriations or the use of, or Federal right to, water on public lands;

(3) expanding or diminishing Federal or State jurisdiction, responsibility, interests, or rights in water resources development or control;

(4) displacing, superseding, limiting, or modifying any interstate compact or the jurisdiction or responsibility of any legally established joint or com-

mon agency of 2 or more States or of 2 States and the Federal Government; or

(5) superseding, modifying, or repealing, except as specifically set forth in this Act, existing laws applicable to the various Federal agencies.

### SEC. 20. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as are necessary to carry out this Act, including establishment of the Reclamation Drought Response Fund under section 16.

### SEC. 21. SUPPLEMENT.

This Act shall be deemed to be a supplement to the Federal reclamation law.

○

II

102D CONGRESS
1ST SESSION

# H. R. 355

IN THE SENATE OF THE UNITED STATES

APRIL 11 (legislative day, APRIL 9), 1991

Received; read twice and referred to the Committee on Energy and Natural Resources

# AN ACT

To provide emergency drought relief to the Reclamation States, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

## SECTION 1. SHORT TITLE.

This Act may be cited as the "Reclamation States Emergency Drought Relief Act of 1991".

## SEC. 2. DEFINITIONS.

As used in this Act:

(1) The term "Secretary" means the Secretary of the Interior.

(2) The term "Federal Reclamation laws" means the Act of June 17, 1902 (32 Stat. 388) and Acts supplementary thereto and amendatory thereof.

(3) The term "Federal Reclamation project" means any project constructed or funded under Federal Reclamation law. Such term includes projects having approved loans under the Small Reclamation Project Act of 1956 (70 Stat. 1044).

# TITLE I—TEMPORARY DROUGHT PROGRAM

## SEC. 101. ASSISTANCE DURING DROUGHT; WATER PURCHASES.

(a) CONSTRUCTION, MANAGEMENT, AND CONSERVATION.—Consistent with existing contractual arrangements and State law, and without further authorization, the Secretary is authorized to undertake construction, management, and conservation activities that will mitigate, or can be expected to have an effect in mitigating, losses and damages resulting from drought conditions. Any construction activities undertaken pursuant to the authority of this subsection shall be limited to temporary facilities designed to mitigate losses and damages from drought conditions and shall be completed no later than one year after the date of enactment of this Act, except that wells drilled to mitigate losses and damages from drought conditions may be permanent facilities.

(b) ASSISTANCE TO WILLING BUYERS AND SELLERS.—In order to minimize losses and damages resulting from drought conditions, the Secretary may assist willing buyers in their purchase of available water supplies from willing sellers.

(c) WATER PURCHASES BY BUREAU.—In order to minimize losses and damages resulting from drought conditions, the Secretary may purchase water from willing sellers, including water made available by Federal Reclamation project contractors through conservation or other means with respect to which the seller has reduced the consumption of water. The Secretary shall deliver such water pursuant to temporary contracts under section 102.

(d) WATER BANKS.—The Secretary is authorized to participate in water banks established by a State in an affected drought area, to respond to a drought.

### SEC. 102. AVAILABILITY OF WATER ON A TEMPORARY BASIS.

(a) GENERAL AUTHORITY.—In order to mitigate losses and damages resulting from drought conditions, the Secretary may make available, by temporary contract, project and nonproject water, and may permit the use of facilities at Federal Reclamation projects for the storage or conveyance of project or non-project water, for use both within and outside an authorized project service area.

(b) SPECIAL PROVISIONS APPLICABLE TO TEMPORARY WATER SUPPLIES PROVIDED UNDER THIS SECTION.—

(1) TEMPORARY SUPPLIES.—Each temporary contract for the supply of water entered into pursuant to this section shall terminate no later than one year after the date of enactment of this Act, or the termination of the temporary drought program described in section 105, whichever comes first.

(2) OWNERSHIP AND ACREAGE LIMITATIONS.—Lands not subject to Reclamation law that receive temporary irrigation water supplies under temporary contracts under this section shall not become subject to the ownership and acreage limitations or pricing provisions of Federal Reclamation law because of the delivery of such temporary water supplies. Lands that are subject to the ownership and acreage limitations of Federal Reclamation law shall not be exempted from those limitations because of the delivery of such temporary water supplies.

(3) TREATMENT UNDER RECLAMATION REFORM ACT OF 1982.—No temporary contract entered into by the Secretary under this section shall be treated as a "contract" as that term is used in sections

203(a) and 220 of the Reclamation Reform Act of 1982 (Public Law 97–293).

(4) AMENDMENTS OF EXISTING CONTRACTS.—Any amendment to an existing contract to allow a contractor to carry out the provisions of this section shall be a temporary amendment only, not to exceed one year from the date of enactment of this Act, or the termination of the temporary drought program described in section 105, whichever comes first. No such amendment shall be considered a new and supplemental benefit for purposes of the Reclamation Reform Act of 1982 (Public Law 97–293).

(c) CONTRACT PRICE.—The price for water delivered under a temporary contract entered into by the Secretary under this section shall be at least sufficient to recover all Federal operation and maintenance costs and administrative costs, and an appropriate share of capital costs, including interest on project irrigation and municipal and industrial water, except that, for project water delivered to nonproject landholdings in excess of 960 acres, the price shall be full cost (as defined in section 202(3) of the Reclamation Reform Act of 1982 (Public Law 97–293; 96 Stat. 1263; 43 U.S.C. 390bb)). For all contracts entered into by the Secretary under the authority of this title, the interest rate used for computing interest during construction and interest on the unpaid balance of the capital costs shall be at a rate to be determined by the Secretary of the Treasury based on average market yields on outstanding marketable obligations of the United States with remaining periods to maturity of one year occurring during the last month of the fiscal year preceding the date of execution of the temporary contract.

(d) FISH AND WILDLIFE.—The Secretary may make water from Federal Reclamation projects and nonproject water available on a nonreimbursable basis for the purposes of protecting or restoring fish and wildlife resources, including mitigation losses, that occur as a result of drought conditions. The Secretary may store and convey project and non-project water for fish and wildlife purposes, and may provide conveyance of any such water for both State and Federal wildlife refuges and for habitat held in private ownership. The Secretary may make available water for these purposes outside the authorized project service area. Use of the Federal storage and conveyance facilities for these purposes shall be on a nonreimbursable basis.

(e) NONPROJECT WATER.—The Secretary is authorized to store and convey nonproject water utilizing Federal Reclamation project facilities for use outside and inside the authorized project service area for municipal and industrial uses, fish and wildlife, and agricultural uses. Except in the case of water supplied for fish and wildlife, which shall be nonreimbursable, the Secretary shall charge the recipients of such water for such use of Federal Reclamation project facilities at a rate established pursuant to section 102(c) of this Act.

### SEC. 103. SALT WATER INTRUSION.

As necessary to protect and improve water quality and to protect fishery resources in the Sacramento-San Joaquin Delta, California, the Secretary is authorized to construct such temporary barriers, and to take other cooperative actions with the State of California, as may be necessary to prevent salt water intrusion in the Delta.

### SEC. 104. EXEMPTIONS AND PRIORITIES.

(a) ENVIRONMENTAL REPORT.—Concurrent with implementation of drought-related activities or projects authorized pursuant to this title, the Secretary shall assess and evaluate the environmental impacts of such activities and projects and take into consideration any adverse effect an action or actions proposed to be taken pursuant to this title may have on existing lawful uses of water and on fish and wildlife resources or other instream beneficial uses. The Secretary shall provide Congress with an interim assessment of the environmental impacts no later than six months after the date of enactment of this Act.

The Secretary shall provide Congress with a final report on such impacts at the conclusion of the temporary drought program. The final report shall include the Secretary's recommendations for avoiding or mitigating any adverse environmental impacts in response to future droughts.

(b) FEDERAL PAPERWORK REDUCTION ACT.—Actions taken pursuant to this title are in response to the temporary drought program and shall be undertaken without undue delay and therefore shall not be subject to the requirements or conditions of sections 3504 and 3507 of title 44, United States Code.

### SEC. 105. APPLICABLE PERIOD OF TEMPORARY DROUGHT PROGRAM.

(a) IN GENERAL.—The programs and authorities established under this title shall become operative in any Reclamation State only after the Governor or Governors of the affected State or States has made a request for temporary drought assistance and the Secretary has determined that such assistance is merited. The temporary drought authorities authorized by this title shall expire one year after the date of enactment of this Act, or upon a determination by the Secretary, in consultation with the Governor or Governors of the affected State or States, that such authorities are no longer required, whichever comes first.

(b) COORDINATION WITH BPA.—If a Governor referred to in subsection (a) is the Governor of the State of Washington, Oregon, Idaho, or Montana, the Governor shall coordinate with the Administrator of the Bonneville Power Administration before making a request under subsection (a).

# TITLE II—PERMANENT DROUGHT AUTHORITY

## SEC. 201. IDENTIFICATION OF OPPORTUNITIES FOR WATER SUPPLY CONSERVATION, AUGMENTATION AND USE.

The Secretary is authorized to conduct studies to identify opportunities to conserve, augment, and make more efficient use of water supplies available to Federal Reclamation projects and Indian water resource developments in order to be prepared for and better respond to drought conditions. The Secretary is authorized to provide technical assistance to States and to local government entities to assist in the development, construction, and operation of water desalinization projects, including technical assistance for purposes of assessing the technical and economic feasibility of such projects.

## SEC. 202. DROUGHT CONTINGENCY PLANS.

The Secretary, acting pursuant to the Federal Reclamation laws, utilizing the resources of the Department of the Interior, and in consultation with other appropriate Federal and State officials, Indian tribes, public, private, and local entities, is authorized to prepare cooperative drought contingency plans (hereinafter in this title referred to as "contingency plans") for the prevention or mitigation of adverse effects of drought conditions.

## SEC. 203. PLAN ELEMENTS.

(a) PLAN PROVISIONS.—Elements of the contingency plans prepared pursuant to section 202 may include any or all of the following:

(1) One or more water banks whereby the Secretary and project and nonproject water users may buy, sell, and store water consistent with State law, including participation by the Secretary in water banks established by the State.

(2) Appropriate water conservation actions.

(3) Water transfers to serve users inside or outside authorized Federal Reclamation project service areas for such purposes as the Secretary deems appropriate and which are consistent with Federal and State law.

(4) Use of Federal Reclamation project facilities to store and convey nonproject water for munici-

pal and industrial, fish and wildlife, or other uses both inside and outside an authorized Federal Reclamation project service area.

(5) Use of water from dead or inactive reservoir storage or increased use of ground water resources for temporary water supplies.

(6) Temporary and permanent water supplies for fish and wildlife resources.

(7) Minor structural actions.

(b) FEDERAL RECLAMATION PROJECTS.—Each contingency plan shall identify the following two types of plan elements related to Federal Reclamation projects:

(1) those plan elements which pertain exclusively to the responsibilities and obligations of the Secretary pursuant to Federal Reclamation law and the responsibilities and obligations of the Secretary for a specific Federal Reclamation project; and

(2) those plan elements that pertain to projects, purposes, or activities not constructed, financed, or otherwise governed by the Federal Reclamation law.

(c) DROUGHT LEVELS.—Each contingency plan shall define levels of drought wherein specific elements of the contingency plan may be implemented. The Secretary is authorized to work with other Federal and State agencies to improve hydrologic data collection systems and water supply forecasting techniques to provide more accurate and timely warning of potential drought conditions and drought levels that would trigger the implementation of contingency plans.

(d) COMPLIANCE WITH LAW.—The contingency plans and plan elements shall comply with all requirements of applicable Federal law, including the National Environmental Policy Act of 1969 (42 U.S.C. 4321), section 715(a) of the Water Resource Development Act of 1986 (33 U.S.C. 2265(a)), and the Fish and Wildlife Coordination Act, and shall also be in accordance with applicable State law.

(e) REVIEW.—The contingency plans shall include provisions for periodic review to assure the adequacy of the contingency plan to respond to current conditions, and such plans may be modified accordingly.

### SEC. 204. RECOMMENDATIONS.

(a) APPROVAL.—The Secretary shall submit each plan prepared pursuant to section 202 to the Congress, together with the Secretary's recommendations, including recommendations for authorizing legislation. No approval of the contingency plan by either the Secretary or the Commissioner of Reclamation shall become effective until the expiration of 60 calendar days (which 60 days, however, shall not include days on which either the House of

Representatives or the Senate is not in session because of an adjournment of more than three days to a date certain) after the submissions of the plan to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives; except that, any such approval may become effective prior to the expiration of the 60 calendar days in any case in which each such committee approves an earlier date and notifies the Secretary in writing of such approval: *Provided,* That when the Congress is not in session, the Secretary's approval, if accompanied by a finding by the Secretary that substantial hardship to water users or the environment will result, shall become effective when the chairman and the ranking minority member of each such committee shall file with the Secretary their written approval of said findings.

(b) PACIFIC NORTHWEST REGION.—A contingency plan under subsection (a) for the State of Washington, Oregon, Idaho, or Montana, may be approved by the Secretary only at the request of the Governor of the affected State in coordination with the other States in the region and the Administrator of the Bonneville Power Administration.

### SEC. 205. RECLAMATION DROUGHT RESPONSE FUND.

The Secretary shall undertake a study of the need, if any, to establish a Reclamation Drought Response Fund to be available for defraying those expenses which the Secretary determines necessary to implement plans prepared under section 202 and to make loans for nonstructural and minor structural activities for the prevention or mitigation of the adverse effects of drought.

### SEC. 206. TECHNICAL ASSISTANCE AND TRANSFER OF PRECIPITATION MANAGEMENT TECHNOLOGY.

(a) TECHNICAL ASSISTANCE.—The Secretary is authorized to provide technical assistance for drought contingency planning in any of the States not identified in section 1 of the Reclamation Act (Act of June 17, 1902, 32 Stat. 388), and the District of Columbia, Puerto Rico, the Republic of the Marshall Islands, the Federated States of Micronesia, the Trust Territory of the Pacific Islands, and upon termination of the Trusteeship, the Republic of Palau, the United States Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands. Funds for drought contingency planning activities under this subsection shall be advanced to the Secretary.

(b) TECHNOLOGY TRANSFER PROGRAM.—The Secretary is authorized to conduct a Precipitation Management Technology Transfer Program to help alleviate problems caused by precipitation variability and droughts in the West, as part of a balanced long-term water resources development and management program. In consultation with State and local water, hydropower, water quality and instream flow interests, areas shall be selected for conducting cost-shared field studies to validate and quantify the potential for appropriate precipitation management technology to augment stream flows. Validated technologies shall be transferred to non-Federal interests for operational implementation.

# TITLE III—GENERAL AND MISCELLANEOUS PROVISIONS

### SEC. 301. AUTHORIZATION OF APPROPRIATIONS.

Except as otherwise provided in section 304 of this Act (relating to temperature control devices at Shasta Dam, California), there is authorized to be appropriated not more than $30,000,000.

### SEC. 302. AUTHORITY OF SECRETARY.

The Secretary is authorized to perform any and all acts and to promulgate such regulations as may be necessary and appropriate for the purpose of implementing this Act.

### SEC. 303. EFFECT OF ACT ON OTHER LAWS.

Nothing in this Act shall be construed as limiting or restricting the power and authority of the United States or—

(1) as expanding or diminishing Federal, tribal, or State jurisdiction, responsibility, interests, or rights in water resources development or control;

(2) as displacing, superseding, limiting, or modifying any interstate compact or the jurisdiction or responsibility of any legally established joint or common agency of two or more States or of two States and the Federal Government;

(3) as superseding, modifying, or repealing, except as specifically set forth in this Act, existing laws applicable to the various Federal agencies;

(4) as affecting in any way any law governing appropriation or use of, or Federal right to, water on Federal lands, or the right of any Indian tribe to use its water for whatever purposes it deems appropriate, including fish and wildlife purposes, or the right of a tribe to buy or sell water, or to affect any right enjoyed under license, lease, or other authorization from an Indian tribe;

(5) as affecting the water rights of any Indian tribe or tribal licensee, permittee, or lessee, or diminishing the Indian trust responsibility of the United States;

(6) as affecting in any way the applicability of the National Environmental Policy Act, except as

specifically set forth in this Act, the Endangered Species Act, section 715(a) of the Water Resource Development Act of 1986 (33 U.S.C. 2265(a)), or the Fish and Wildlife Coordination Act, or as otherwise superseding, modifying, or repealing, except as specifically set forth in this Act, existing law applicable to the various Federal agencies;

(7) as modifying the terms of any interstate compact, or Congressional apportionment of water; or

(8) as affecting water rights of any person recognized under State law.

### SEC. 304. TEMPERATURE CONTROL AT SHASTA DAM, CENTRAL VALLEY PROJECT.

The Secretary is authorized for fiscal year 1992 to commence design and construction of facilities needed to attach to Shasta Dam, Central Valley Project, California, devices for the control of the temperature of water releases from the dam. There is authorized to be appropriated to carry out the authority of this section, not more than $12,000,000.

### SEC. 305. CONSISTENCY WITH STATE LAW.

All provisions in this Act pertaining to the diversion, storage, use, or transfer of water shall be consistent with State law.

**SEC. 306. EXCESS STORAGE AND CARRYING CAPACITY.**

The Secretary is authorized to enter into contracts with municipalities, public water districts and agencies, other Federal agencies, State agencies, and private entities, pursuant to the Act of February 21, 1911 (43 U.S.C. 523), for the impounding, storage, and carriage of water for domestic, municipal, fish and wildlife, industrial, and other beneficial purposes from any facilities associated with the Central Valley Project, Cachuma Project, and the Ventura River Project, California.

**SEC. 307. REPORT.**

The Secretary shall submit an annual report to the President and the Congress on his expenditures and accomplishments under the Act.

**SEC. 308. BUY-AMERICAN REQUIREMENT.**

(a) DETERMINATION BY THE SECRETARY.—If the Secretary, with the concurrence of the United States Trade Representative and the Secretary of Commerce, determines that the public interest so desires, the Secretary shall award to a domestic firm a contract that, under the use of competitive procedures, would be awarded to a foreign firm, if—

(1) the final product of the domestic firm will be completely assembled in the United States;

(2) when completely assembled, not less than 51 percent of the final product of the domestic firm will be domestically produced; and

(3) the difference between the bids submitted by the foreign and domestic firms is not more than 6 percent.

In determining under this subsection whether the public interest so requires, the Secretary shall take into account United States international obligations and trade relations.

(b) LIMITED APPLICATION.—This section shall not apply to the extent to which—

(1) such applicability would not be in the public interest;

(2) compelling national security considerations require otherwise; or

(3) the United States Trade Representative determines that such an award would be in violation of the General Agreement on Tariffs and Trade or an international agreement to which the United States is a party.

(c) LIMITATION.—This section shall apply only to contracts for which—

(1) amounts are authorized by this Act (including the amendments made by this Act) to be made available; and

(2) solicitation for bids are issued after the date of the enactment of this Act.

(d) REPORT TO CONGRESS.—The Secretary shall report to the Congress on contracts covered under this section and entered into with foreign entities for fiscal year 1991 and shall report to the Congress on the number of contracts that meet the requirements of subsection (a) but which are determined by the United States Trade Representative to be in violation of the General Agreement or an international agreement to which the United States is a party. The Secretary shall also report to the Congress on the number of contracts covered under this Act (including the amendments made by this Act) and awarded based upon the parameters of this section.

(e) DEFINITIONS.—For purposes of this section:

(1) SECRETARY.—The term "Secretary" means the Secretary of the Department of the Interior.

(2) DOMESTIC FIRM.—The term "domestic firm" means a business entity that is incorporated in the United States and that conducts business operations in the United States.

(3) FOREIGN FIRM.—The term "foreign firm" means a business entity not described in paragraph (2).

Passed the House of Representatives March 21, 1991.

Attest: DONNALD K. ANDERSON,
*Clerk.*

Senator BRADLEY. We are very pleased that our first witness today is the senior Senator from California, Senator Cranston, who has clearly been a strong advocate of responsible water policy in California, and most recently has been extremely sensitive and aggressive in trying to meet the needs of his constituents during a very serious drought in California. He is someone whose views I respect greatly, and I know the subcommittee will benefit from his presence before us today.

Senator Cranston, welcome to this subcommittee, and it is an honor to have you here.

## STATEMENT OF HON. ALAN CRANSTON, U.S. SENATOR FROM CALIFORNIA

Senator CRANSTON. Thank you very much, Bill. I appreciate those very thoughtful words and I appreciate even more the great leadership you are providing on these many fronts in regard to water and power and related matters in my State and in many States.

I am pleased to be back before the Subcommittee on Water and Power to testify in support of legislation to provide emergency drought relief.

I know you are very familiar with California's water situation, so I will be very brief. As you well know, California is coping with its fifth straight year of drought. Although the March miracle of unseasonable rain alleviated the situation, the drought is not over. Reservoirs in the State are still exceedingly low, and carryover storage is expected to be well below normal.

Legislation is needed to permit the Secretary of the Interior to undertake activities to respond to the drought to help make the limited water supplies available where they are needed most, and to be prepared and better able to respond to drought conditions in the future.

I am supporting passage of S. 404, legislation to amend the Warren Act to permit the use of Federal facilities for the storage and conveyance of non-project water for municipal and industrial and other purposes. Current law permits the use of Federal facilities when there is excess capacity only for agricultural purposes. The act needs to be updated to permit joint use of these facilities for other purposes. S. 404 provides that authority. In doing so, it eliminates the need to build separate facilities for storage and conveyance of non-agricultural water supplies, and provides immediate help with water transfers.

In the 101st Congress, I sponsored this legislation. This committee approved it, the full Senate passed it, so I very much hope that you will again approve the measure, which I am now pleased to be co-sponsoring with Senator Seymour.

I also support the major provisions of H.R. 355, the Reclamation States Emergency Drought Relief Act of 1991. The Secretary of the Interior should have the authority to drill wells and construct temporary facilities to mitigate losses and damages due to drought conditions, to assist willing buyers who wish to purchase water from willing sellers, to purchase water from willing sellers and sell it to others on a temporary basis, to store and convey non-project water, and to participate in water banks established by States like the one already established by the State of California.

Additionally, I believe the Secretary of the Interior should have the authority to work together with the State of California to construct temporary barriers in the Sacramento—San Joaquin Delta of California if necessary, to protect water quality and fishery resources from salt water intrusion which can occur during drought conditions. The delta is critical habitat for fish and wildlife, and a major source of drinking water and irrigation water, making it imperative that delta water quality be preserved.

I also support authorizing the Secretary of Interior to identify opportunities for water conservation and augmentation, and to provide technical assistance to States and local governments wishing to pursue water desalinization project. Desalinization can be especially attractive to California, since our population is concentrated along the coast where the ocean is a readily available, dependable, and inexhaustible source of water, even in times of drought.

Additionally, sea water intrusion through out many of the aquifers along the California coast has made 20 percent of the ground water supply unsuitable for domestic use. Desalinization can make this important water source usable.

I also favor providing the Secretary of the Interior with clear authority to prepare drought contingency plans in cooperation with States and other interests. These measures should help the Federal Government and reclamation States anticipate drought conditions, and be better prepared to deal with drought conditions in the future.

Finally, let me just briefly mention the need to commence construction of the temperature control facility at Shasta Dam in California. As you may know, the Bureau of Reclamation is proposing to construct a shutter-type device at Shasta Dam to allow water to be withdrawn selectively from different depths of the reservoir, thereby controlling temperatures for fish, while simultaneously operating the power plant. Temperature control is critical to restore the Second Muddy Water Fishery, and especially, the winter-run Chinook salmon, federally listed as a threatened species, but can only be accomplished now at the expense of valuable hydro-electric power generation.

With moneys appropriated for fiscal year 1991, the Bureau is conducting the necessary environmental studies and design work on the Shasta Dam temperature control device, and should be in a position to complete the design, award the contract, and proceed with work on the hoist and support frames in fiscal year 1992, if Congress provides the needed authorization and funding. I have already urged the Senate Appropriations Committee to provide funding, as it makes good sense, and will save money to commence construction of the Shasta Dam Temperature Control Facilities, while the reservoir is low because of the drought.

So I greatly hope you will support full authorization of this $52 million project. But at a minimum, I urge you to authorize the expenditure of $12 million, as authorized by H.R. 355 to get started in fiscal year 1992.

And thank you for what, I trust, you will try to do to these ends.

Senator **Bradley**. Thank you very much Senator Cranston. Your testimony is very important. I know the committee will be looking very seriously at the authorization on Shasta Dam temperature control, and since it is almost a fait accompli, I think it only just that we authorize it. I want to thank you, once again, for you thoughts on the bills before us that deal with the drought.

Senator **Cranston**. Thank you very much. I appreciate your courtesy. I look forward to being with you in Sacramento.

Senator **Bradley**. Indeed, we look forward to having you in Sacramento. We hope that it will be a very positive hearing, and your presence there will add to it significantly.

Senator **Cranston**. Thank you very much.

Senator **Bradley**. Our first panel consists of the Honorable Dennis Underwood, Commissioner of the Bureau of Reclamation; Gary Edwards, Assistant Director of Fisheries for the U.S. Fish and Wildlife Service; Daniel Sumner, Deputy Assistant Secretary for Economics, U.S. Department of Agriculture.

Gentlemen, welcome to the subcommittee. You know the subject of today's hearing, and I look forward to receiving your testimony.

## STATEMENT OF DENNIS B. UNDERWOOD, COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR

Mr. **Underwood**. Mr. Chairman, I would like to request that my written statement be made part of the record.

Senator **Bradley**. Your statement will be in the record.

Mr. **Underwood**. I would also like to submit two reports. One is the Water Supply Conditions for Western States, May 1990–1991, also, a report by Reclamation on Reclamation States Drought Assistance Act of 1988, which was reported to the President and to the Congress in February 1991.* It talks about how do you help mitigate future effects of droughts.

Mr. Chairman, I would like to thank you for the opportunity to testify on a very important issue that needs immediate attention. And I would like to also extend my appreciation on behalf of the administration, Mr. Chairman, for you introducing S. 586 on behalf of the administration. And I would also like to thank Senator Seymour and other members of Congress for taking the initiative to address means for mitigating the effect, not only of the current drought, but also of future droughts.

The Department supports enactment of S. 586 and urges the committee to take the necessary action to report the bill as expediently as possible. The legislation not only addresses means to mitigate the present drought situation, but also serves as a follow up to our February 1991 report, which talks about ways of mitigating future droughts.

That report points out the need to institutionalize drought management planning because of the diminishing margin of reserve between supply and demand in most parts of the country. That report focused on three areas, and I think those are the main areas that most of the legislation is also focused on. That had to do with the importance of water conservation, all the way from the forecasting back to the source of supplies. In addition to that, it talks about drought preparedness and drought contingency plans, and giving the Secretary some additional authority so he can more appropriately respond to drought situations.

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* The reports were retained in subcommittee files.

For the remainder of my remarks, I am going to briefly update the water supply conditions and give you a sense of the urgency. As Senator Cranston indicated, the drought is by no means over. I would also like to talk briefly about the approach that was used in terms of managing the drought, and some lessons learned from that, which I think would be helpful in terms of the legislation, and also talk a little bit about the expenditures, potentially, under the Dire Emergency Supplemental Appropriations Act. And I will specifically talk about some of the sections of the various bills.

Very briefly—and more detailed information is provided in this Water Supply Outlook, a monthly report the Bureau has been putting out now for almost 2 years, providing greater information to people—in terms of the water supply conditions in the western United States, in most cases, this is a fourth or a fifth year of drought. The most severe areas, in the particular case of this year, are California, south central and southeastern Oregon, also, southern Idaho, and in Nevada, principally in the Truckee-Carson Rivers.

A particular case, also, of impacts is the Platte River, and other places in the Great Plains, where they may be having near normal precipitation, but because the carryover storage is diminished because of the continuation of the drought, still there is not an adequate water supply for this year. We have also experienced some above normal precipitation where you do not have problems, Columbia Basin and Rio Grande, and also the San Juan drainages in New Mexico and Colorado.

Let me focus a little bit more on California. I think that gives you more sense of urgency. Like you have pointed out, Mr. Chairman, there are 30 million people in California and about 9 million acres of irrigated agriculture. Sixty percent of the water supply in California comes from surface water, 40 percent from ground water, under normal conditions. Four major water supply systems provide that 60 percent, and that is really supplemental service because it is beyond the ability of the local resources to support those demands.

The Central Valley Project generally provides between 7 million acre-feet and 8 million acre-feet of water a year. This year, we will be providing about 3.4 million acre-feet. Of the supplies coming from the Central Valley Project, agriculture is cut to a 25 percent supply, municipal and industrial users are between 25 percent and 50 percent, and there are some cuts in terms of prior right holders, which can either be a 25 percent or no cut in the case of the city of Sacramento. Again, these deal with rightholders that had rights prior to the occurrence of the projects.

State Water Project, and you will hear more probably from the State today, is delivering only a 25 percent supply. State Water Project is principally a municipal and industrial project, although it does provide supplemental service for agriculture. Other major components, the LA aqueduct, which takes water from the eastern Sierras into the city of Los Angeles will be delivering less than a 50 percent supply. For the Colorado River system, we were able, because of conditions on the system to provide for a full supply this year. And that, by doing so, allowed for a favorable decision, allowed for 400 acre-feet of water to be used from the Colorado that otherwise probably would not have been used.

In terms of the ground water basins, I just went through the surface water showing their impact but the ground water basin, generally a 40 percent, but higher reliance, obviously during dry periods. This has lead to potential problems with land subsidence, also with sea water intrusion and potential other water-quality problems. Creation of the State Water Bank has helped in some cases. In the neighborhood of 800,000 acre-feet has been provided through that water bank. A lot of that water is coming from prior right holders.

We are also looking at hardship cases in the Central Valley Project, not only for municipal, but also fish and wildlife and agriculture in terms of permanent crops and will be seeking some release in the neighborhood of less than 200,000 acre-feet for hardship cases.

These systems, when you really look at it, the infrastructure has served us well. This is a fifth year of drought and that infrastructure was to be able to move waters to places of need and provide supplemental service. That is what they are to fashion.

I think to give some urgency to drought, and say that another year continues, a sixth year of drought, where would that leave us? Given what I just got through telling you in terms of our Central Valley Project, if we were having a carry-over storage, given those conditions right now with the water supply that we have, we would have a carry over of about 3 million acre-feet. That compares to 4 million last year, which means we are down 1 million acre-feet.

If we had another critical year, very similar to where we are right now, we would only have water to meet the delta needs, the in-stream flow needs, and the prior right holders. That 1 million acre-feet is the water, basically this year, that we are providing to our contractors, meaning municipal and industrial, and also for agriculture. So there would be no supply available in that particular case, given those scenarios, if we had another critical year next year. So I think that gives you some semblance as to potential urgency or the need for drought relief.

Let me talk a little bit about the drought management approach that was taken. This, again, was focused at the local level. It was a hands-on approach. Operations principally were being manned in the area of where the projects are in the State operations. And we believe that really, in this particular case of the drought, real problems can be solved through operations. When you look at other opportunities, it is water project operations that are going to solve the drought problem.

In terms of a State approach, the Governor formed a drought action team that provided central focus for assistance, which we think was a very good approach. The creation of a State water bank, again, brings some orderly mechanism to meet critical needs. How do you have an orderly market to be able to provide for water for critical needs? Again, we think that was a good posture.

At the Department of the Interior, the Secretary established a representative on the Governor's action team. In addition to that, we formed a Federal ad-hoc interagency task force on California drought that had high level attendance, not only from all of the agencies within Interior, but also Agriculture, EPA, Commerce, the Department of the Army, Justice, FEMA, and also the Small Business Administration. Again, it was to focus the Federal attention and then provide for central assistance going to the State as opposed to having a multiple approach. And we thought this was a much better response to the State's needs.

In terms of the Bureau of Reclamation, let me just run quickly through some of the things that we were doing. I indicated to you that we have been providing a monthly report on drought conditions. We go into an early drought management mode in terms of cutting back. We were the first entity within the State to start cutting back supplies last year. We also looked for some modifications of our operations during the drought period, in terms of meeting in-stream flow needs and also fish and wildlife needs.

We also recognize the importance of establishing early priorities in terms of directing drought management efforts. And that means meeting public health and safety needs, also, for protection of natural resources, so you did not lose natural resources, and also for permanent crops. And those were the priorities that we were looking at in terms of meeting critical needs, and also for hardship water.

Also very key to the drought operations is the coordinated operations of the Federal, State, and local projects. One of the things that we also recognized was very beneficial was what we already had in place, and were working for the 4 or 5 years, a task force and working groups that were formed to help in the development of water supply project operations. And that is not only for instream flow needs, but water quality, and also municipal, industrial, and agriculture, and the delta requirements.

I think also very key to the State Water Bank was the cooperation of the Federal Government. I think we worked very closely together in terms of a State and a Federal entity in terms of the water bank. The Colorado River decision was very favorable, I think, and helped the State in terms of additional water. Operational studies—this became very clear and modified operations in terms of how you meet the demands. Not only are you looking for providing water to meet critical needs, but also looking at next year carryover storage.

Also, in trying to help facilitate water transfers, we came up with, like I indicated, hardship criteria and transfer criteria. We also learned something from some of that transfer criteria. We should probably be more liberal in some of our transfer criteria that we had established. We also had fish flushes for the Sacramento and the Stanislaus River to potentially aid in the out-migration of juvenile salmon.

Also, for hardship water for wildlife refugees provided for last year, we are looking at providing that again for this year—small modifications like Red Bluff Diversion Day where we raised the gates and allowed for greater migration of fish; temperature control to actually stimulate upward migration, knowing that we did not have as much water potentially to control temperature; moving the fish farther up so that we potentially could have better control of the temperature which is needed for survival of the egg and the fry of the salmon.

Also, in terms of Shasta Dam, the idea of bypassing was used, again, for temperature control measures, which was already mentioned. In addition to that, we worked with rice growers in private wetlands to help leave water in fields longer so that they can be there for the wild fowl for winter nesting.

Also, the endangered species protection became and has been a major effort in terms of how we arrived at our water operations, not only this year, but in future years and in the special emphasis going into Trinity River releases this year and for future years in terms of the fishery needs in Trinity River.

Another key item that we have been keeping in mind, as I indicated to you, in 1992 operations, but even more importantly, how do you recover from drought after this? In other words, making sure that we have an opportunity to recover our ground water basins and our surface water systems to be in a better posture to address droughts in the future.

Let me just quickly run through, again, what items are there for successful drought management: the local focus, establishing priorities; strong coordination, communications. The other parts that really helped alleviate some of the drought conditions in California were the conservation storage system, ground water reserve, the infrastructure, so that you had it in place to meet needs. The State Water Bank could not have worked without that infrastructure because you could not reserve water in a bank and then move it to the southern part of the State.

And also, that infrastructure provided for improvements in instream flow. We have harder opportunities in the Klamath than the Truckee and Carson because we do not have as much infrastructure potentially to do some of the improvements that we have done in terms of the Central Valley.

I think these are some of the areas that we would believe the legislation would have to address: restrictions on the use of water and facilities to meet critical needs, meaning restrictions on Federal projects to potentially move waters around; lack of in-place, staged and coordinated drought contingency plans. We are actually playing catch-up in many places and putting into place the drought contingency plans. It would have been nice to have those in place so that you have established priorities and you also avoid some of the environmental compliance problems that would come up. Also, it would avoid or lessen some of the endangered species conflicts and provide for next-year operations and recovery plans.

We also lack some authority or clarification of authority to carry out some minor construction that is needed in terms of temporary facilities to help mitigate drought conditions—also, the authority to enter into agreements relative to drought contingency plans.

NEPA compliance for emergency conditions is obviously very timely. We believe, though, that there are emergency procedures that are provided for where you do not necessarily need an exemption for NEPA compliance.

Appropriations are needed for emergency actions. This is the dire emergency appropriations we believe is adequate for this year—$25 million has been provided. We have compiled, with Fish and Wildlife Service and other interested groups, a project list that would include our projects that are West-wide in 17 States that potentially would qualify for emergency action. We would be looking at holding some reserve in case the drought continues next year. But, obviously, those appropriations will be very helpful in meeting some of the fish and wildlife needs.

I indicated to you before that for some of our endangered species conflicts, the idea of having to provide or doing consultations for endangered species when we are also trying to manage the drought did provide for some complications. I think that the drought contingency plans would take into account endangered species and would relieve us of some of those responsibilities or hardships when we are trying to manage critical situations.

We recognize that individuals will have financial hardships. There is always, and in the past we have looked at, the deferment of payments relative to water contracts or loans. However, when you consider the pay-as-you-go provisions of the budget compromise acts, where do we come up with the money? And we recognize that is a personal hardship. But you have to also be aware of where to get the funds to potentially provide for any kind of relief.

Also, I think a problem area that we have recognized is the need for improvements in water forecasting and heavy real-time data.

Senator CONRAD [presiding]. Mr. Underwood, might I ask you, are you close to the end?

Mr. UNDERWOOD. Yes.

Senator CONRAD. Because if not, I would just ask you to summarize because we are, as we look at the list of witnesses, and two of my colleagues have joined us and not had a chance to make statements that they might want to make, and unfortunately, we are going to be interrupted with a vote at 3:00. And if we are to actually complete this hearing this afternoon, I would very much appreciate it if you could summarize.

Mr. UNDERWOOD. I am ready to move. I was just going to make some points on the legislation. A lot of those deal with background in terms of what do you need in terms of authority. And I think that that points out some of the areas that we need.

Let me just indicate that in terms of S. 586, we believe the general authority that is provided, in terms of performing studies and also to enter into some agreements in the development of drought contingency plans, is particularly very helpful.

The idea of making water available in our facilities on a temporary basis to be used to mitigate the effects of droughts, in other words, that we could potentially take non-project water or project water and make the best use of that water in meeting critical needs.

And also, we believe in terms of that provision of S. 586 that, in terms of drought implementation of drought assistance, meaning the Secretary, after consultation with the governor, makes the determinations that those actions are merited, then he could potentially implement those. He would not want a cumbersome process to implement action so that we can make those in the most timely manner.

Let me just make reference to S. 404. This is to amend the Warren Act. Again, we are in agreement. This provides for more effective and efficient use of water.

However, we would point out that we believe that maybe it should be amended to allow for other parties in the country to contract or use that storage. In addition to that, we would look for potential accreting operations costs in the charges or rates that would be provided, in addition to the construction and maintenance costs.

Let me just quickly address S. 711 and H.R. 355. They contain many of the authorities that we just talked about in S. 586. However, there are some provisions that concern us in terms of S. 711, and again, that goes back to the PAYGO issues, in terms of deferment of payment of contract and loan obligations, recognizing that there is a significant burden. But where do we come up? And how do we offset those funds that would be necessary?

Also, in terms of reclamation and drought response fund, recognizing it would be nice to have such a fund, again, looking at the PAYGO provisions, exemptions to NEPA, and the Federal Paperwork Reduction Act, we do not believe the fund is needed because we think there are sufficient procedures that allow for expedient consideration in terms of emergency conditions.

In terms of H.R. 355, the submittal of reports and drought contingency plans to Congress provided by sections 204 and 207, we believe are unnecessary. And we also feel that they would violate some of the separation of powers.

Regarding section 304, authorization of $12 million for Shasta Dam temperature control, we believe that is premature. The final planning report and the final EIS are being finalized at EPA on May 30, and the record of decision is scheduled for May 31, 1991. We believe that it would involve a substantial amount of money and that authorization should be handled separately.

We would also expect some cost sharing provisions consistent with the administration policy relative to salt water barriers in the Delta.

In summary, we believe that S. 586 is physically sound, environmentally responsible, and provides for the permanent authority of the Secretary to better respond to droughts. It also helps to institutionalize drought management planning and recovery that is definitely needed, not only in the Western States, but in the Nation as a whole.

Thank you.

[The prepared statement of Mr. Underwood follows:]

## PREPARED STATEMENT OF DENNIS B. UNDERWOOD, COMMISSIONER OE RECLAMATION, DEPARTMENT OF THE INTERIOR

Thank you, Mr. Chairman. I appreciate the opportunity to appear at this hearing to present the views of the Department of the Interior on S. 586, a bill to provide authority to the Secretary of the Interior to reduce the impacts of drought conditions, and for other purposes; S. 404, to authorize the Secretary of the Interior to enter into contracts pursuant to the Warren Act for domestic, municipal, fish and wildlife, and other beneficial purposes, and for other purposes; S. 711, to authorize the Secretary of the Interior to undertake certain activities to reduce the impacts of drought conditions, and for other purposes; and H.R. 355, an act to provide emergency drought relief to the Reclamation States, and for other purposes.

The Department supports the enactment of S. 586 and urges your Committee to take the necessary action to report the bill as expeditiously as possible. I would like to thank the Chairman for introducing S. 586 on behalf of the Administration. In addition, I would like to thank Senator Seymour and other members of the Congress for taking the initiative to address means for helping to mitigate the adverse effects of drought.

As you know, a number of areas in the West are faced with critical drought conditions. Enactment of S. 586 would help alleviate some of the problems caused by the lack of adequate water supplies.

To underscore a sense of urgency, I would like to provide the Committee with an update of drought conditions in the West in general and in California in particular.

Most of the Western States continue to be affected by drought conditions. California and Nevada are in their fifth straight year of drought, while other parts of the West are in their fourth year of drought.

Stream flow forecasts are below average for most river basins and remain less than 50 percent of average in river basins in Nevada and California. Isolated instances of above normal forecasts are found in the northern portions of the Columbia River Basin and in the Rio Grande and San Juan drainages in New Mexico and Colorado.

While substantial precipitation occurred in California in March and in other parts of the West in April, runoff forecasts and reservoir storage remain below normal in most areas. Reservoir storage on Reclamation projects ranges from less than 50 percent of average in Oregon, Nevada, and California watersheds to well above average in the Columbia Basin. Major storage systems in California are near 60 percent of average as a result of the March precipitation.

In many Western areas, ground water basins have been severely overdrafted during the past several years of drought. This increases the potential for land subsidence, sea water intrusion, and other water quality problems.

California has been one of the areas most severely affected by the prolonged drought. The Bureau of Reclamation provides for about one-third of California's total water needs through the Central Valley Project (CVP) and the Colorado River System. While the precipitation in much of California's principal watershed areas for March was just over 200 percent of average for the month, it fell far short of ending the drought. The precipitation did increase the water supply forecast for the northern portions of the CVP by 2.2 million acre-feet, but still left a shortage of over 3 million acre-feet required to meet normal demands.

The May 1991 CVP water supply forecast indicates a September, 1991, carryover of approximately 3 million acre-feet for the 1992 water year which is 1 million acre-feet less than last year's carryover. Projected 1991 CVP water deliveries are 3.4 million acre-feet. The projected supply and project operations provide for all formal fishery release requirements and water quality standards for the Sacramento-San Joaquin Delta be met. Included in the forecasts are operational considerations to provide protection to two listed species: the threatened winter-run chinook salmon and the endangered bald eagle. Allocations to CVP agricultural and urban water service contractors will remain the same as announced on February 14, and March 15, with a 25 percent supply for agricultural water contractors and between a 25 and 50 percent supply for urban water contractors, and a 75 percent supply for Sacramento River water rights contractors and San Joaquin exchange contractors.

The March precipitation also improved our ability to deliver "hardship" water. The Bureau is now considering requests for hardship water for reducing drought impacts to fish and waterfowl as well as urban and agricultural users within the CVP.

With regard to California's other major supply systems, the California State Water Project, which serves central and southern California, recently increased its allocation of water to municipal and industrial users to 20 percent of average. The Los Angeles Aqueduct will produce only about one-half of its normal supply of water for the City of Los Angeles.

Conditions in the Colorado River System are such that a full Colorado River Aqueduct supply will be allowed. Other relief is being provided by water from the State water bank. Most of this water is from fallowing farm land or substituting ground water for surface water supplies.

These four water supply systems (CVP, Colorado River System, State Water Project and the Los Angeles Aqueduct) supply the vast majority of all surface water used in California. Groundwater normally supplies about 40 percent of California's total water needs. During periods of drought, the reliance on groundwater is greatly increased, resulting in substantial overdrafts of this resource. Actions are being studied by Reclamation to enhance recovery of ground and surface supplies of water. Activities such as groundwater replenishment through artificial recharge or an in-lieu operation, as well as continued conservation are needed to allow supplies to recover to mitigate future droughts.

A more complete summary of drought conditions can be found in our monthly report entitled, *Water Supply Conditions for the Western States, May 1991*. I would like to submit a copy of that report for the record.

Mr. Chairman, the Bureau of Reclamation's drought management efforts for the past several years, as well as reviews of previous drought mitigation activities, clearly reinforce the need for additional authority for the Secretary of the Interior. Such authority would allow the Bureau of Reclamation, in cooperation with States and local agencies, to respond more effectively to drought conditions both on and off reclamation projects.

S. 586, introduced by you, Mr. Chairman, at the request of the Administration, would grant this authority. First, S. 586 would grant broad authority to the Secretary, acting pursuant to the Federal reclamation laws, to plan ahead in concert with other Federal agencies, States, local governments, Indian tribes, other public and private entities, and individuals for the use of water resources in times of drought. This would be permanent authority and would significantly aid in institutionalizing drought planning, management, and recovery. We have learned from past experience that stop-gap temporary authority may be too little and too late to adequately address the impacts of temporary drought conditions and the problems they generate. Given the diminishing margin of reserve between water supply and demand, such authority will become increasingly important in the future. Our report "The Reclamation States Drought Assistance Act of 1988, Report to the President and the Congress, February 1991" underlined this need. I would also like to submit a copy of that report for the record. Second, the Secretary of the Interior must be able to fully utilize the physical resources of the water resource development projects of the Bureau of Reclamation to address drought conditions. A significant portion of the water supply infrastructure of the Western States was built and is operated and maintained by Reclamation. The use of these facilities to reduce the impacts of drought conditions is crucial to the protection of the Federal investment in the projects, the ability of State and local authorities to manage water supplies in times of scarcity, and the well-being of water users and instream flow needs.

S. 586 would authorize the Secretary to enter into temporary contracts—not to exceed one year—to make available water and the use of facilities at Federal reclamation projects for the storage or conveyance of project or non-project water, for use both within and outside authorized project service areas.

As you know, Mr. Chairman, similar authority is provided under the Warren Act of 1911 for the use of project facilities. However, the authority granted under S. 586 is much broader.

For example, the Secretary would be able to contract for water or use of facilities with public or private entities which want to make water available for fish and wildlife purposes.

It is important to recognize that the impacts of drought conditions are far reaching. This can include individual business failures and extend to broader reductions in economic and employment opportunities, fish and wildlife, and other instream needs such as recreation, hydroelectric power generation, and navigation. Water quality, fish and wildlife populations and habitat may be severely stressed by drought and take years to recover. In addition to authorizing the Secretary to enter into contracts for the use of water or facilities for fish and wildlife related drought mitigation, S. 586 also authorizes the Secretary to make water available on a temporary basis for reducing the impact of drought on fish and wildlife.

Mr. Chairman, the Bureau of Reclamation is using its existing authority to the extent possible in responding to the drought conditions. The Dire Emergency Supplemental Appropriations Act of 1991 provides $25 million to meet the emergency needs for areas stricken by drought. Reclamation has canvassed its field offices in the 17 Western States and has identified emergency relief projects which can be undertaken. This ongoing review of these suggested projects includes close coordination and cooperation with fish and wildlife interests and the Fish and Wildlife Service so as to assure full consideration and concern for projects that would alleviate drought-related impacts on fish and wildlife resources. S. 586, Mr. Chairman, would grant the additional authority needed to undertake several of the projects proposed for funding from the supplemental appropriation.

Finally, with respect to the pay-as-you-go provisions of the Omnibus Budget Reconciliation Act of 1990, preliminary Office of Management and Budget scoring estimates of the budgetary impact of S. 586 indicate that receipts as a result of section 3(b)(1) of the bill may increase by less than $1 million per year.

S. 404 seeks to expand the purposes for which the Secretary of the Interior may enter into contracts pursuant to the Warren Act to include "domestic, municipal, fish and wildlife, and other beneficial purposes," as opposed to the current authority which provides for irrigation water supplies only. The authority granted by the bill would be limited to contracts with political subdivisions in the State of California and limits use of facilities for expanded purposes to the Central Valley Project, Cachuma Project, and the Ventura Project, all in California.

The authority contained in S. 404 is not temporary, nor contingent upon drought conditions. It does provide for greater use of existing facilities and enhances water management capabilities. It is understood that the bill is uniquely designed to be geographically restrictive, but it is recommended that it be amended to permit contracting with other entities in addition to political subdivisions of the State.

The bill should be amended to clarify that the rate charged by the Secretary should provide for operational costs as well as construction and maintenance costs as currently provided in the Warren Act.

Mr. Chairman, your Committee has two other bills before it relating to drought problems in the West. They are S. 711 and H.R. 355.

Although some of the same authorities are found in these two bills, the Administration supports the legislation drafted by the Department of the Interior as embodied in S. 586.

S. 711 would provide additional substantive permanent drought authority. The bill raises several PAYGO issues. These include Section 9 which would allow the Secretary to defer payment on obligations under Federal Reclamation law contracts or loans and Section 16, establishing a Reclamation Drought Response Fund.

In addition, Section 11(a) would exempt actions taken in response to drought from the National Environmental Policy Act (NEPA) and the Federal Paperwork Reduction Act (FPRA). Existing regulations adequately provide for expedited consideration in emergency situations. Thus, an exemption is unwarranted.

The Administration opposes H.R. 355 unless some of its provisions are deleted or amended. These include Sections 204 and 307, dealing with a review period for certain drought contingency plans and requiring the Secretary submit concurrently a report to the Congress and the President. These sections violate the separation of powers by subjecting Executive Branch action to veto or approval by committees of the Congress and by infringing on the President's authority to control the presentation of Executive Branch views to the Congress.

Section 304 of H.R. 355 would authorize $12 million for design and construction work of a temperature control device at Shasta Dam in California. The Administration recommends that this provision be deleted pending the filing of the Planning Report and Final Environmental Impact Statement on the device with the Environmental Protection Agency, scheduled for May 30, 1991, and the Record of Decision, scheduled for July 31, 1991.

In addition, Sections 101, 102, and 103 of H.R. 355 need clarification as it relates to the Secretary's authority to acquire and provide water for purposes not recognized as beneficial in some States, a better definition of which water-saving actions go beyond efficiencies already required by contract, and which water is available for Secretarial purchase.

The legislation should clarify that cost-sharing requirements for the construction of salt water barriers in the Sacramento-San Joaquin Delta, California, should be consistent with Administration policy.

Exemption of temporary drought actions from the Federal Paperwork Reduction Act is unnecessary and an undesirable precedent. Existing regulations adequately provide for expedited consideration in emergency situations:

Mr. Chairman, S. 586 proposes a fiscally sound and environmentally responsive solution to the need of the Secretary of the Interior for permanent authority to better respond to future drought conditions.

The bill provides a reasonable and workable supplement to existing authority without an excessive burden on the taxpayer and with full recognition of both the temporary nature of drought and the need for permanent authority to better respond to temporary drought conditions.

We urge the adoption of S. 586.

That concludes my statement. I would be pleased to answer any questions you or members of the Committee may have.

Senator **Conrad**. Thank you. Next, we will hear from Mr. Gary Edwards, the Assistant Director for Fisheries, U.S. Fish and Wildlife Service, the Department of the Interior.

Welcome, good to have you here. Thank you for your testimony. And maybe, before we go ahead, if either of my colleagues would have anything they would want to say at this point we will be glad to hear from them.

### STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR FROM MONTANA

Senator BURNS. Mr. Chairman, in the interest of time, thank you very much. I have a statement that I would like to be entered into the record.

We have, as you know, you and I both have quite a lot of interest in this hearing and this legislation as both of our areas have been impacted with drought for the last 7 to 8 years to where our instream flow of the Missouri, the Upper Missouri, of course, has been very low. And we have been impacted severely. But I think some of that has been done with the policy that was developed with the Corps of Engineers and that is another fight and another dog.

But I would ask, I am looking forward to the hearing, and I would just ask that my statement be entered in the record in the interest of time.

Senator CONRAD. Without objection, Senator Burns, your statement will be made a part of the record, and we very much appreciate the leadership that you have given on this issue.

[The prepared statement of Senator Burns follows:]

#### PREPARED STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR FROM MONTANA

Mr. Chairman, thank you for holding this important hearing on several bills relating to drought—particularly the drought in California—the situation in California has eased somewhat but we still need to find a way to address the long-term problems that occur from drought and what we can do to mitigate its effects.

We have been in the grip of a drought in the high plains of Montana, North and South Dakota for several years now. We don't have the population to attract the attention to our drought that the drought in California has attracted. But I am delighted to learn that the nature of most of the bills before us today are national in scope and not specifically limited to the situation in California. Perhaps there is some applicability to the solutions proposed to the drought in California that could be applied to the situation we find ourselves in on the high plains.

Montana and the Dakotas don't produce as much in the way of agriculture as does California in fruit and vegetables, but we do produce a significant percent of the wheat that becomes bread for this country. And that production is under long-term stress.

We can do some things in California to reduce the adverse impacts of drought. Move some water around and reallocate. In Montana and the Dakotas we also have the water—its in the Missouri River—but we can't get at it. We can't reallocate. We have to watch our water flow on down the river so that barge traffic downstream isn't inconvenienced.

This nation made a commitment to the upper Missouri River states that if we would give up prime agricultural bottom land along the river we would get irrigation to insulate us from problems such as drought. That promise has never been kept. The dams have been built but we have precious little to say about where the water goes or for what use.

So Mr. Chairman, I have concerns about California's drought, but I also have major concerns about the drought that continues to persist on the Northern Great Plains. Thank you.

Senator CONRAD. Certainly, our part of the country has been severely impacted. Just the lake level and the major reservoir in my State is down 30 feet. And I know, Senator Seymour, you have had much of the same problems. If you have any opening statement, we certainly would be glad to hear that.

## STATEMENT OF HON. JOHN SEYMOUR, U.S. SENATOR FROM CALIFORNIA

Senator **Seymour**. Thank you very much, Mr. Chairman and members of the committee.

I am pleased to be here as the subcommittee considers Western States emergency drought legislation. My interest in these measures cannot be overstated.

As we are aware, many of the western States have suffered dry years. California is in its fifth and most severe year of a devastating drought. This drought has impacted every segment of our community. Farmers are facing the most severe water restrictions in history. Rural communities are running dry. Urban and suburban cities have been subjected to unprecedented measures to ration available supplies. And water supplies for our precious fish and wildlife resources are dangerously low.

An unthinkable 6th year of drought would push us right over the edge of disaster.

We have been fortunate, however. California's vast and sophisticated water supply and delivery systems have demonstrated their flexibility. They allowed us to weather the first 3 years of this drought without any cutbacks. This is a remarkable achievement. And just as the flexibility in the physical systems appeared to reach its limit, Governor Wilson moved quickly to mobilize State forces to combat the drought. He is to be commended. But without Federal legislation, his efforts and that of any governor is limited.

The Federal Government must also move quickly to cooperate as a helpful partner with the State to move water to areas of critical need in California and in other western States. We must remove the legal barriers preventing the free movement of water and we must cut through the bureaucratic red tape so that the relief arrives soon and it is felt by those who are suffering. Also, we must be sure that the next time drought strikes, and history tells us that it will, that we are better prepared to deal with it.

As we consider the measures before us today, I want to highlight several provisions of S. 711, which I believe will assure that relief will be timely and effective and which will make us more prepared the next time a devastating drought occurs.

First, S. 711 will cut through the red tape. It makes drought relief activities exempt, as you had said, Mr. Underwood, from compliance with the National Environmental Policy Act and the Paperwork Reduction Act for 1991, only. Past experience tells us that this is essential if we are to take immediate and meaningful action this year. However, the Secretary would be required to take into consideration any adverse affects proposed actions will have on existing lawful uses of water and on fish and wildlife resources and other instream beneficial uses.

Second, S. 711 would give the Secretary of the Interior permanent authority to act in the face of a drought. In the past, Congress has enacted drought relief bills on an as needed basis. They have limited effectiveness.

S. 711 would grant the Secretary emergency authority for 2 years. After 2 years the Secretary is required to have in place drought contingency plans to extend the authority of these provisions, these plans to be developed in cooperation with State governments and consistent with State law. It will describe the measures to be taken by Federal, State, and local agencies to manage water supplies for a specific areas during times of drought.

Third, S. 711 will allow farmers to defer payment of loans. Nonagricultural payments will be subject to current interest rates and must be repaid within a period of 10 years. Farm deferments would be collected on an ability to pay basis without interest.

Fourth, S. 711 would provide Federal loans to purchase temporary water supplies. In addition, the money could be used to make structural changes to storage and delivery systems, dikes and levies, but most importantly, for water conservation activities, which must be a critical element of any drought plan.

I am confident, Mr. Chairman, that this subcommittee will do what is right. And that is to move quickly for the passage of this much-needed drought relief legislation.

I have noted in my review of the various bills, Senator Bradley's bill, Congressman Miller's bill, we are not far away on this. There are some deficiencies and things that can be changed, both in my legislation as well as my colleagues. And I am hopeful that we can reach resolution very quickly so that we can push forward on a program that will truly provide some drought relief.

Finally, let me just as a footnote, Mr. Chairman, say to Mr. Underwood, you raise the question, where would we get the money relative to deferral of payments or loans in light of the budget agreement of last year. And I think you are absolutely right. That question needs to be answered.

It would seem to be that at first blush the answer would be that this kind of drought is an emergency and in emergency situations, if it is declared by the White House, then in fact you know you can go outside the budget agreement.

So my answer to your question is that I would hope that this authorization created by these pieces of legislation with the Secretary of the Interior's is not exercised unless it is an emergency. And certainly, California and some of the other western States, but particularly California, is in an emergency situation and it is already recognized by the White House.

Thank you, Mr. Chairman.

Senator Conrad. Thank you, Senator Seymour.

I would just note in passing the seriousness in my State is perhaps best evidenced by the community of Devil's Lake, the largest fresh-water lake in my State. On Main Street they have now constructed a doomsday clock.

They have, in that community, the largest industry is the tourist industry associated with that lake and the fishing associated with that lake. And they are just a foot away or so from massive fish kills that would kill that lake in terms of the economic benefit it provides. And so they have constructed a doomsday clock, drawing people's attention to the need to stabilize that lake level.

This is an experience that is repeated throughout our part of the country. And the need to take emergency action, I think, has become critical.

Next, we will turn to Mr. Edwards. Again, thank you for being here and thank you for your patience as well.

## STATEMENT OF GARY EDWARDS, ASSISTANT DIRECTOR FOR FISHERIES, FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY JIM McKEVITT, SACRAMENTO FIELD STATION, FISH AND WILDLIFE SERVICE

Mr. EDWARDS. Thank you, Mr. Chairman. I appreciate the opportunity to appear today.

Since Commissioner Underwood has provided the Department's view on the individual bills before you, I will limit my remarks to just briefly summarizing the impacts of the drought on fish and wildlife, with the primary emphasis on California.

I would request that my entire testimony be submitted for the record.

Senator CONRAD. And I would presume that you would also have an emphasis on North Dakota, am I right?

[Laughter.]

Mr. EDWARDS. I can give you a couple of examples in North Dakota, yes, sir.

Senator CONRAD. If you want to throw in Montana, that would be fine.

[Laughter.]

Senator BURNS. We do not want to get too provincial here.

[Laughter.]

Mr. EDWARDS. With me today, Mr. Chairman, I have Jim McKevitt from our Sacramento field station. He is available to assist in answering any questions that the subcommittee may have.

Needless to say, fish and wildlife resources that have already been severely stressed by 4 years of continuous drought are being further impacted by current conditions. Water-oriented species, some of which are already endangered are being further diminished. Anadromous fish populations are declining. And wetland riparian systems are being reduced in value.

Some examples of the more critical implications of the current conditions, again in California, are inadequate water for food production and fall flooding on the few remaining valley wetlands, including national wildlife refuges, and will affect migratory waterfowl. Without adequate winter habitat, the potential for disease increases and surviving birds will return to Northern breeding grounds in poor conditions, causing populations to further decline.

Refuge public use activity may also have to be greatly curtailed, particularly hunting.

Fall run chinook salmon in the San Joaquin River system have declined precipitously in recent years from a recent high of 70,000 spawners in 1985 to 25,000 in 1987, 3,000 in 1989, and 600 in 1990. If adverse conditions continue, significant loss of production from the 1990 fall run and the 1991 spawning run are predicted.

The threatened winter run chinook salmon numbered 500 adults in 1989, 440 in 1990. Preliminary information indicates that the 1991 run may be significantly less. Because of the summer water temperature impacts on egg development, the status of these fish are worsened perhaps even to the point of extinction.

Spring run chinook salmon in the Sacramento River system are at dangerously low levels and at risk due to high water temperatures. The prognosis for their survival is certainly poor. There are many other examples of the drought's impacts on fish and wildlife resources that are provided in my formal statement.

Over the past 4 years the Service and the Bureau of Reclamation have cooperated extensively to begin trying to address some of these impacts. As a result of the lengthy drought the Bureau has provided for releases of cooler water at Shasta Reservoir for spawning egg incubation on the winter run chinook. They have also provided water in the spring to encourage spawners to move into upper reaches where acceptable water temperature is available. And they have provided releases to assist downstream juvenile migration.

Additionally, they have operated the Delta Cross Cut channel gate to benefit smolt releases from our Coleman National Fish Hatchery.

The Bureau has also made deliveries of water in each of the last 4 years to our national wildlife refuges. While these past actions have been positive, continued additional assistance will be needed this year to keep resources viable for recovery once the drought ends.

On an especially positive note, and as Commissioner Underwood indicated or alluded to, Secretary Lujan on May 8th directed the release of between 240,000 to 340,000 acre-feet of water this year into the Trinity River to benefit salmon and steelhead populations. He also directed that at least 340,000 acre-feet be released in future years if at all possible.

Regarding long term efforts, water resource management could be improved by changing the present allocations at Federal reservoirs to better meet the needs of fish and wildlife. During the first 4 years of this 5-year drought, deficiencies were imposed on fish and wildlife while most other users did not incur deficiency in service supplies until 1990. To that end we are working with the Bureau to evaluate possible improvements such as the Shasta Dam temperature control device, full correction of the upstream and downstream fish passage problems at Red Bluff diversion dams, improvements to the fish traffic at Keswick Dam, proper screening at Glenn Colusq district pumps, and to obtain firm water supplies for national wildlife refuges.

Although these and other ongoing cooperative efforts should have beneficial future results, in the interim efforts need to be explored to alleviate short term impacts.

For the present fish and wildlife principally need two things, approximately 400,000 acre-feet of surface water for Central Valley Federal and State waterfowl refuges, and reservoir storage levels and release level operations that protect salmon from large flows of warm water during spawn and egg incubation, and providing adequate flows for downstream migration.

Given these two requirements, flexible utilization of water supply project operations to avoid adverse impacts to the extent possible is certainly necessary. Innovative approaches to the use of preciously short supply of water must be explored by every user.

We are actively working with the Bureau of Reclamation to provide new supplies for fish and wildlife within the context of obviously the many competing water uses.

Mr. Chairman, I thank you for the opportunity to present our views and I would be pleased to respond to any questions.

[The prepared statement of Mr. Edwards follows:]

### PREPARED STATEMENT OF GARY EDWARDS, ASSISTANT DIRECTOR FOR FISHERIES, FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

Thank you, Mr. Chairman, for the opportunity to appear today. I will address the drought as it relates to fish and wildlife issues, and Commissioner Underwood will address the Department's views on the legislation.

This is the fifth consecutive year of dry conditions, and four out of the five have been classified by the Bureau of Reclamation as "critically dry"—a designation given when only about half the normal precipitation occurs. While March was abnormally wet, and improved water conditions substantially, we are still facing severe drought conditions.

The drought is statewide, but the fish and wildlife problems are most evident in the Central Valley and the Sacramento-San Joaquin Delta. That is the heart of California's water system, where water is stored and used, as large quantities are diverted for both agricultural and municipal/industrial uses.

The short-term and long-term impacts have, in essence, merged because of the duration of this event. However, in the short term, streamflows are diminished; lake levels are low, permanent wetlands have become desiccated or reduced in size, and some seasonal wetlands may fail to be replenished at all. Uplands have become more dry and are vulnerable to wild fires. In the long term, water-oriented species, some of which are already endangered, are being severely impacted; anadromous fish populations are declining, and wetland and riparian systems are reduced in value, thereby support fewer migratory birds.

Further, because of short water supplies, populations and habitats of most water-oriented wildlife were already in decline when the drought commenced. Central Valley National Wildlife Refuges, which have firm surface supplies amounting to less than 10 percent of their water need, have been unable to provide the wintering habitat essential to maintenance of Pacific Flyway populations. Wintering populations have already declined from long-term average of 10–12 million waterfowl annually just 10 years ago, to fewer than 2 million last winter.

On average, Central Valley salmon and steelhead streams have less than 40 percent of their estimated required flow. Populations have plummeted, and the winter-run chinook salmon is already listed as a threatened species. Fall-run chinook salmon, which had spawning runs in excess of 600,000 fish valley-wide in the early 1950's, were down to less than 100,000 fish in 1990.

It must be recognized that fish and wildlife are already stressed with four years of drought. The following are some of the more critical implications of continued drought:

- Inadequate water for food production and fall flood on the few remaining valley wetlands, including our National Wildlife Refuges, will further affect flyway waterfowl. Unless adequate wintering habitat is provided, birds that survive will return to northern breeding grounds in poor condition and populations may further decline.
- Both nesting and wintering bald eagles may be affected by reduction in reservoir pools statewide.
- The drying up of riparian zones adversely impact populations of the endangered Least Bell's Vireo and their proposed critical habitat.
- Fall-run chinook salmon in the San Joaquin River system have declined precipitously in recent years—from a recent high of 70,000 spawners in 1985, to 25,000 in 1987, 3,000 in 1989, and 600 in 1990. This is due primarily to insufficient spawning attraction flows, spring outmigration flows, and extensive Delta pumping during times of water shortage. If adverse conditions continue, significant loss of the production of the 1990 fall run and the 1991 spawning run are predicted. Since salmon spawn on a 3-year cycle, this essentially means that only the progeny of the meager 1989 run, and whatever survivors there may be for 1990 and 1991, may be left to sustain the entire basin population.
- Water in many Central Coast streams supporting steelhead trout has not flowed to the sea in 5 years, resulting in loss of several year-classes of these fish, which have a 3-year life cycle.
- The threatened winter-run chinook salmon numbered 500 adults in 1989 and only 441 in 1990. Preliminary information indicates that the 1991 run may be significantly less. Because of summer water temperature impacts on egg devel-

opment, the status of these fish will worsen because of the drought, perhaps even to the point of extinction.

- Lethal high water temperatures can be expected to adversely impact the early spawning component at the fall run of chinook salmon—the largest number and most valuable commercially of Sacramento River salmon.
- Spring-run chinook salmon in the Sacramento River system are at dangerously low levels and at risk due to high water temperatures. Continued drought will exacerbate their condition, possibly leading to a threatened or endangered status. The prognosis for their survival is poor.
- Delta smelt, tidewater goby, and other fish species being considered for listing under the Endangered Species Act are being adversely affected. Because the Delta smelt has a life cycle of only one year, and has declined drastically in recent years, it could face extinction.
- Survival of salmon smolts migrating through the Delta is at an all-time low due to reduced inflows and continuing diversions and exports. Delta springtime outflows are expected to be much lower than the levels that have been identified for reasonable smolt survival.
- Production of striped bass in the Sacramento-San Joaquin estuary is at an all-time low and expected to worsen. The index of young-of-the-year striped bass last year was 4.6, compared to an expected average of 79. Adult populations are already only one-fourth to one-third what they were 20 years ago.
- Water temperature below major water project reservoirs such as Folsom, Oroville, and New Melones have been marginal to lethal for salmon, and will worsen due to low storage levels. In 1990, salmon and steelhead runs in the American River were severely depressed because of low flow and temperature problems. Entire year-classes may be lost due to continued drought conditions in 1991.
- The 5-year drought has adversely affected the native annual and short-lived herbs of California, including the ten species already listed and the numerous high-priority candidate plants from Central Valley. The drought has effected a reduction in annual seed production, which reduces the "seed bank" that maintains these fragile populations.
- This reduction in vegetation, especially seeds, has adversely impacted the three federally listed kangaroo rats and numerous other small mammals. Some kangaroo rat populations have collapsed in the southern San Joaquin Valley. These losses of small mammals have adversely affected the listed San Joaquin kit fox, which preys primarily on small rodents. The blunt-nosed leopard lizard has been adversely impacted by reduced availability of food as well.
- The Service has been petitioned to list the giant garter snake, a species already listed as threatened by the State of California. This aquatic species, dependent on seasonal and permanent sloughs and slow-moving creeks, appears to be suffering widespread habitat losses from the drought.
- Invertebrate populations are being severely impacted. The endangered California fresh water shrimp is suffering critical loss of habitat because of reduced stream flow. Almost all of the 9 species of endangered butterflies in California are experiencing declines in numbers to the verge of extinction because the drought has virtually eliminated growth of their host plants. Vernal pool species, such as the candidate fairy shrimp, are undergoing major habitat loss as desiccated vernal pool areas are also reduced. The valley elderberry longhorn beetle, a species dependent on riparian vegetation, is declining as efforts to cope with the drought cause habitat loss.

It should be emphasized that the Bureau of Reclamation has cooperated substantially in the past four years in mitigating some of the impacts of this lengthy drought. For the last three years, the Bureau has forgone significant power generation at Shasta Reservoir to provide cooler water in releases for spawning and egg incubation of the winter-run chinook salmon. They have also provided water in the spring to encourage migration of winter-run chinook salmon spawners into upper reaches where acceptable water temperatures may be more readily provided. In addition, the Bureau has provided releases to assist downstream juvenile migrants and has operated the Delta Cross Channel gate to benefit smolts released from Coleman National Fish Hatchery.

To compensate wildlife refuges not having firm water supplies, the Bureau has made substantial deliveries of water in each of the last four years. While these actions have been positive, even more assistance will be needed this year in order to keep resources viable for recovery once the drought ends.

On an especially positive note, Secretary Lujan on May 8 directed the release of between 240,000 and 340,000 acre-feet of water into the Trinity River for fisheries purposes this year. He also directed that at least 340,000 acre-feet be released in future years.

Our Sacramento Field Office is actively participating in the State Water Resources Control Board's drought emergency hearings, and our Sacramento Field Office Supervisor was selected by the Governor's Drought Action Team chairman to serve as an invited participant. In these two forums, we provide technical advice as to the consequences of the drought and identify measures that can ameliorate impacts to fish and wildlife.

In the short term, we believe that fish and wildlife resources can benefit from measures such as rescheduling of export pumping, low- and high-level power bypassing releases to minimize water temperature adverse to fish, Delta Cross Channel gate operations, and greater use of rechargeable groundwater resources.

Our Coleman National Fish Hatchery on Battle Creek, a tributary to the Sacramento River, has done everything possible to minimize losses of fall-run chinook salmon and propagate the threatened winter-run chinook salmon. The Hatchery may prove to be a vital sanctuary for Sacramento River winter-run and fall-run chinook; and Battle Creek, which has a naturally cool water supply, will also be critical for the fall-run chinook.

Long-term resource management could be improved by changing the present allocations of supplies at Federal reservoirs to meet the needs of fish and wildlife. During the first four years of this 5-year drought, deficiencies have been imposed on instream flows and out-of-stream water supplies for wildlife. In the long term, we are working with the Bureau of Reclamation to evaluate possible improvements, such as the Shasta Dam temperature control device, full correction of the upstream and downstream fish passage problems at Red Bluff Diversion Dam, improvements to the fish trap at Keswick Dam, proper screening of the Glenn Colusa Irrigation District pumps, and to obtain firm water supplies for National Wildlife Refuges.

It should be emphasized, however, that the Central Valley Project is a key element in the statewide solution. The Project has the water rights and physically controls much of the water in the Central Valley. In large part, solutions to water temperature problems for salmon and refuge water supply needs will involve the operations of the Central Valley Project.

Fish and wildlife have suffered through 4 years of drought already. Deficiencies were imposed on fish and wildlife starting in 1987 while most other users did not incur deficiencies in surface supplies until 1990. In a nutshell, fish and wildlife need:

> (1) About 400,000 acre-feet of surface water for Central Valley Federal and State waterfowl refuges. This is in essence our only consumptive need.
>
> (2) Reservoir storage levels and release-level operations that protect salmon from lethally warm water temperatures during spawning and egg incubation. In this fifth year of drought, water temperature is of paramount importance over flow considerations. For much, if not most of the year, instream flows will be only those minimums necessary to protect water quality for Delta export of municipal supplies. Water in the Central Valley will not be "wasted to the sea" for fishery purposes. Further carryover storage needs in reservoirs may only be prudent for contingency in case the winter of 1991–1992 is dry.
>
> (3) Given these two requirements, utilization of the flexibility in water supply project operations to avoid adverse impacts to the extent possible will be necessary. In a year with so little water, the available reservoir, canal, and pumping plant capacities can and should be used to schedule needed deliveries in the least damaging pattern. Innovative approaches to the use of a preciously short supply of water must be explored by every user.

We are actively working with the Bureau of Reclamation to provide needed supplies for fish and wildlife within the context of the many competing water uses.

Thank you again, Mr. Chairman, for opportunity to present our views. I will be pleased to respond to any questions you may have.

Senator CONRAD. Next, we will hear from Mr. Daniel Sumner, the Deputy Assistant Secretary for Economics of the USDA, and again, welcome, and please proceed with your statement.

## STATEMENT OF DANIEL A. SUMNER, DEPUTY ASSISTANT SECRETARY FOR ECONOMICS, DEPARTMENT OF AGRICULTURE

Mr. SUMNER. Thank you, Mr. Chairman.

The Department of Agriculture appreciates the opportunity to discuss the impact of the drought on agriculture and the types of measures that may facilitate better management of scarce water resources and mitigate the effects of drought. I ask that my complete statement be put in the record so that we can move quickly to the summary. Thank you.

Many western States continue to experience drought conditions. As you are aware, California is in the fifth consecutive year of below-average precipitation, and even though reservoir levels increased during March, those levels remain far below normal. Therefore planned agricultural water deliveries from the Bureau of Reclamation's Central Valley Project and the State Water Project were not changed.

To give a sense of impacts on agriculture the USDA, as a part of its normal Prospective Plantings Report, released farmers' prospective plantings for a number of crops based on a March 1 to 15 survey. California farmers plan to reduce acreage of rice, for example, by 23 percent compared to last year. Cotton producers showed a 14 percent decline in plantings compared to last year, and sugar beet producers indicated 13 percent lower acreage for 1991.

The first actual planting estimate will be available at the end of June, but these figures give an indication of the kind of reduction that farmers projected, at least in large part, because of lower water supplies.

Many areas that have been hit by the drought also have local economies that are highly dependent on agriculture. The drop in agricultural production can therefore have widespread economic consequences. For example, workers employed in agriculture production and in related businesses face significant losses.

Let me turn to the USDA's drought response. We have in our California offices, organized by the Soil Conservation Service, established a California Drought Response Office to develop drought action plans, coordinate responses of agencies to the drought, and provide information to residents.

USDA agencies have increased their efforts to assist producers throughout the western States. For example, the Soil Conservation Service in California has stepped up technical assistance to operators of irrigated cropland.

ASCS has responded to many producers in California and other places who have had their water supplies reduced. Under 1991 farm program provisions, the acreage a producer is prevented from planting to a program crop is treated as if it were planted for purposes of maintaining the crop acreage base.

In the case of irrigated crops, the producer is given prevented planting credit for the percentage reduction that his irrigation supplies were reduced. That is, the percentage attributable to water reductions by the actions of public authorities.

This prevented planting acreage credit can then be used by producers to meet minimum planting requirements to receive deficiency payments under 50–92 programs for cotton and rice. Wheat and feed grain producers may use idle base acreage including prevented planting credit to qualify for payments under 0–92 programs. There are other ASCS actions as well, including emergency feed program assistance that has been approved this year for eight California counties, for example.

It is important that Federal water reclamation facilities be fully utilized in responding to temporary drought conditions. Flexibility to store and convey water is important for agriculture and for other water users. We can get a sense of the contribution that agriculture has made in the context of the California Water Bank program.

Roughly half the water in the California Water Bank program was made available by fallowing 136,000 acres of agricultural land. Most of this would have been used to produce corn and wheat. Other cropland idled for the water bank included that intended for pasture, alfalfa, sugar beets, rice, tomatoes, dry beans and sunflowers.

The California Water Bank appears to have been successful in moving water from areas with the greatest water supplies to those with the greatest water deficits, and to crops with the highest payoff for water use, particularly perennial crops.

In addition, the 50–92 and 0–92 farm program provisions, which allow producers to receive deficiency payments when land is idled or prevented from planting, have facilitated water transfers to other uses.

Let me turn to the bills that we are reviewing today, and in particular S. 586. As Mr. Underwood has stated, this provides measures needed by the Federal and State agencies to work cooperatively to reduce the impacts of drought. Among other things, it provides for drought contingency planning and greater flexibility in the use of Bureau of Reclamation facilities to store and convey project and nonproject water to address drought conditions.

You are aware that western irrigated agriculture is an extremely productive and efficient provider of food and fiber for the Nation and foreign consumers. This productivity is in part a return on the public's investment in irrigated infrastructure.

Long-term solutions to drought mitigation and inefficient water use should incorporate measures that facilitate improved water transfer and water marketing. Opportunities for voluntary water transfers would increase growers' incentives to manage water efficiently, including the adoption of efficient irrigation technology.

That concludes my statement. I also stand ready to respond to questions.

[The prepared statement of Mr. Sumner follows:]

## PREPARED STATEMENT OF DANIEL A. SUMNER, DEPUTY ASSISTANT SECRETARY FOR ECONOMICS, DEPARTMENT OF AGRICULTURE

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to discuss the impact of drought on western agriculture and the types of measures that may facilitate better management of scarce water resources and mitigate the effects of drought.

### THE DROUGHT AND AGRICULTURE

Many western states continue to experience drought conditions. California is in its fifth consecutive year of below average seasonal precipitation. Five consecutive drought years is a rare occurrence in California. The present situation is only the second occurrence this century of four or more consecutive drought years. Even though water reservoir levels increased during March because of above-average precipitation, levels remain far below normal and planned agricultural water deliveries from the U.S. Bureau of Reclamation's Central Valley Project (CVP) and the California State Water Project were not changed.

California will begin the 1992 season with even lower water reservoir levels than in 1991. And a sixth consecutive drought year while not likely is a possibility. It is important that careful contingency planning and preparations continue.

The USDA surveyed farmers during March 1-15 on their 1991 prospective plantings. The survey showed that nationally farmers indicated 1991 rice acreage would be down 3 percent from last year, while California farmers planned to reduce acreage by 23 percent. Nationally, cotton producers expected to increase plantings by 13 percent, while California cotton producers showed a 14 percent decline. Nationally, sugar beet producers indicated no change in the amount of acreage planted from 1990, but 13 percent lower acreage in California for 1991. The first estimate of actual crop plantings for 1991 will be released on June 27.

The extensive investment by both private individuals and the public sector in surface water storage, surface water conveyance, and ground water wells have mitigated, to some extent, the effects of a prolonged drought on most California irrigators. In 1990, the Central Valley Project delivered 5 million acre-feet of agricultural water supply, instead of 7.1 million acre-feet—the average CUP supply. The State Water Project delivered 50 percent of normal agricultural water supply. Despite these reduction, irrigated acreage in the state was less than 3 percent (194,000 acres) below normal.

This year's drought is more severe than during the previous four years. The drought is seriously affecting public sector water supplies for irrigation from the Central Valley Project and the California State Water Project. Private surface water and ground water supplies are also reduced. Flexibility in being able to shift between different water supply sources is part of the reason the system has performed as well as it has during this and earlier severe water shortages. However, in some areas, ground water supplies are being overdrawn, limiting water use and increasing the likelihood of ground water quality problems.

Overall the water system has done well but farmers in some regions may experience problems this year. This applies, for example, to those citrus growers who, in addition to experiencing diminished water supplies, faced damage in last winter's freeze.

Many areas that have been hit by the drought also have local economies that are highly dependent on agriculture. The drop in agricultural production can have widespread economic consequences in these areas, especially among processing, transportation, and farm input businesses. Workers employed on a permanent and temporary basis in these industries and in agricultural production also face losses.

## USDA DROUGHT RESPONSE

The USDA has established a California Drought Response Office to develop drought action plans, coordinate the response of its agencies to the drought, and provide information to residents of California to help them deal with the drought. The coordinator of the Drought Response Office is also a member of the Governor's Drought Action Team and represents USDA in meetings with statewide water associations. USDA agencies have increased their efforts to assist California farmers. For example, the Soil Conservation Service in California has stepped up technical assistance to operators of irrigated cropland.

The Commodity Credit Corporation (CCC) has also responded to the many producers in California who have had their water supply reduced. Under 1991 farm program provisions, the acreage a producer is prevented from planting to a program crop is treated as if it were planted for the purpose of maintaining the crop acreage base. In the case of irrigated crops the producer is given prevented planting credit for the percentage reduction of his irrigation supplies attributable to water reductions by actions of a public authority. This prevented planted acreage credit may be used by producers to meet minimum planting requirements to receive deficiency payments under the 50-92 program for cotton and rice. Wheat and feed grain producers may use idle base acreage, including that prevented from plantings to qualify for payments under the 0-92 program.

Other CCC actions include extending the date producers would normally have to certify the acreage being planted to small grains in order to qualify for farm programs. The Emergency Feed Program has been approved for eight California counties. In addition, haying and grazing of land devoted to conserving uses under the 1991 farm programs may be made available by CCC in the event of a substantial loss of feed production in a county.

IRRIGATION ISSUES

It is important that Federal water reclamation facilities be fully utilized in responding to temporary drought conditions. Flexibility to store and convey water is important for agriculture and other water users. Experience with the California Water Bank indicates the potential effectiveness of increased water marketing for providing drought relief and improving efficiency in water use.

The State Water Bank is now closed to new water sellers. We understand that transactions completed have resulted in 368 separate purchases involving a total of about 700,000 acre-feet of water. We understand that as of late April negotiations were continuing for the purchase of additional water. Total water purchases by the state are expected to exceed 800,000 acre-feet. Participation in the water bank has been concentrated in the Sacramento/San Joaquin Delta area and Yuba and Feather River basins, with these areas supplying approximately 80 percent of total water. Roughly half of the water was made available by fallowing 136,000 acres of agricultural land. Most of this land would have been used to produce corn (56,500 acres) and wheat (36,000 acres). Other crop land idled for the water bank includes that intended for pasture, alfalfa, sugar beets, rice, tomatoes, dry beans and sunflowers.

The water bank appears to have been successful in moving water from areas with greatest water supplies to those with greatest water deficits and to crops that had the highest payoff to water use. In addition, the 50-92 and 0-92 farm program provisions which allow producers to receive deficiency payments when land is idled or prevented from planting have facilitated water transfers to other uses.

S. 586 provides the measures needed for Federal and state agencies to work cooperatively to reduce the impacts of the drought. Among other things, it provides for drought contingency planning measures that would aid in drought management and water conservation. It would also provide greater flexibility in the use of Bureau of Reclamation facilities to store and convey project and non-project water to address drought conditions.

Western irrigated agriculture is an extremely productive and efficient provider of food and fiber for the Nation and foreign consumers. This productivity is in part a return on the public's investment in the irrigation infrastructure.

A long term solution to drought mitigation and inefficient water use should incorporate measures that improve water marketing. This may make water available for high value uses within agriculture and outside agriculture. Opportunities for voluntary water transfers would increase grower incentives to manage water more effectively and to adopt more efficient irrigation technology.

Senator CONRAD. Thank you very much. Maybe I would address my first question to Mr. Underwood and ask you, do any of these bills allow the Secretary to take any remedial action to address the very low lake levels in the Upper Basin of the Missouri River, or for that matter in any area of drought affected in the United States?

Mr. UNDERWOOD. I am trying to recall the provisions within the acts. The acts do provide for making water available for fish and wildlife resources, but you are looking at doing some remedial action after the fact. Is that what you are talking about, Senator?

Senator CONRAD. Well, I am talking about at any time. I am talking about, in some cases, as I described in the Devil's Lake situation where we are on the brink of a disaster, when a community puts up a doomsday clock that should tell us something. They are inches away from the killing of their lake, not because of something we have done, but our fault will lie if we fail to act to assist them, because there is water available if we can get it there.

So what I am asking, is there anything that would give the Secretary the authority to take the kind of remedial action to address these low lake levels that we find wherever they exist, not just in my State but elsewhere?

Mr. UNDERWOOD. I believe, because there are numerous provisions of all of the bills, but it does allow for the Secretary to make water available for fish and wildlife needs. It also does provide for some management and conservation that would meet conditions.

Most of those, though, in terms of facilities are temporary facilities. I think what you may have in mind may be a little more permanent, too, in terms of meeting the needs. I am aware of that problem. This does not provide it, and that is when we get into potentially some of the need for compliance things, too. That is why, if you look at most of the actions here, they are very short-term, temporary in nature.

However, the points that you are making do point out the very point that I have been trying to make in terms of drought contingency plans. You need to look at things and have those types of facilities in place to meet those needs.

But looking at the bills and what I can recall from them, I think you are really looking at temporary actions. There are not any permanent facilities provided for this. It does provide for making water available, but there are no permanent facilities, and I think that is what you are really looking for.

Senator CONRAD. Let me ask Mr. Edwards, we have a situation in which—Devil's Lake, for example, is one of the most productive fisheries anywhere in our region—tremendous production. I was out on the lake last year, and incredible fish being pulled out by people who were fishing there, and I am sure this would not pertain just to my State. Perhaps in Montana as well, California.

You have a situation in which, if the lake levels decline any further, you are faced with massive fish kills. Is there anything, to your knowledge, that is in here that would allow those problems to be addressed?

Mr. EDWARDS. Mr. Chairman, I am not aware of any specific things within the acts that would do that. Just based upon some personal experience in dealing with similar situations, there are some actions that maybe the State can take. For example, trying to salvage as many fish as they can and try to relocate them in areas so that once water comes back, then the lakes can be readily stocked, and that type of thing, but I am not aware of any specific action that the legislation would allow you to take to address that problem.

Senator CONRAD. Of course the problem with that approach is, you kill the industry. I mean, here you have got a situation in which this area is highly dependent upon people coming for tourism, and of course if there is no fish to catch there is not going to be many tourists, and I assume that would be the case in other places as well.

In other words, if we do not find some way to move water from where it may be in surplus to a place that it is in deficit, we do not avoid the disaster in the short term.

Let me ask this question: what effect will these bills have on the Corps of Engineers' management of river systems? Again, I would ask Mr. Underwood, is there anything in these bills that would alter the Corps' authority to manage river systems that are drought-impacted?

Mr. UNDERWOOD. Most of the authorities you are looking at go with the Secretary, and in the particular case, if you are looking at doing drought contingency plans, it is the authority for the Secretary to develop those coordinated drought contingency plans, which is what I think you are talking about in terms of operations of the Missouri.

I do not think that application goes beyond the Secretary of the Interior in that regard.

Senator CONRAD. Why not? Why should we not be addressing these fundamental questions that affect river systems that are drought-impacted?

Mr. UNDERWOOD. I concur wholeheartedly with you. My whole emphasis, in terms of drought contingency, is to develop State and Federal cooperative plans to put in place, and even to be staged such that you can be more responsive. I think it is seriously needed.

I am just responding to the West, but you can take the Nation as a whole. There is no difference in the East or the West in terms of our margin of reserve. Tell me the last time you increased your water yields, and I can assure you that water demands have not been going down, so your margin of reserve is less and you are going to have to deal with droughts. Droughts may be caused by slightly below normal—not necessarily rare—events, and you need to be in a posture to deal with that.

Senator CONRAD. Let me ask you this, then. Would it be your recommendation that in reviewing this legislation and in a subsequent mark-up that we attempt to put provisions like that into any or all of these bills?

Mr. UNDERWOOD. The only thing that I can say, and I would have to look back at the individual bills, it does allow us to provide technical assistance to others, and I cannot remember the language now, whether it talks about other Federal agencies or its application to other Federal agencies, but I know that we have been talking about U.S. territories, et cetera.

There are provisions for the Bureau or the Secretary to provide technical assistance to others to help develop drought contingency plans or drought assistance.

Senator CONRAD. Let me ask you this question: you made the point about the budget. I think, Mr. Edwards, you may have made a similar point. But I recall, Mr. Underwood, you making the point specifically that we do not address the budget question here. Is there any place where we address the question of what are the budget costs if we do not act?

In other words, I am familiar with situations in which, if we do not do something, you face an economic disaster that has consequences that flow directly to the Federal Government. In other words, you have loan defaults as a result of farmers having crop failure. You have small business defaults.

We have just got resort business that went down, or went bankrupt because the water that used to be 200 feet from them is now 1½ miles from then. That is the end of that resort business. The SBA took a significant hit as a result of that.

Resulting unemployment which comes. For example, in the Devil's Lake Basin, if there is an enormous fish kill there you are not going to have much of an economy. That is going to have all kinds of repercussions for the Federal Government and various agencies of the Federal Government.

Is there any way that that is considered when we talk about the budget agreement and cost considerations of deferral?

Mr. UNDERWOOD. Let me tell you, that is something that, when we were developing S. 586, and this was within the whole administration, a lot of people were very sensitive to potential deferrals of payments, et cetera. But, trying to live within the Budget Act agreement and to offset in the year that costs occur, we had a very difficult time trying to figure out ways to potentially provide for what you are talking about.

Even in my testimony, you will see that I talked about far-reaching implications of drought, the very points that you are making, that yes, it can precipitate a lot of business failures, et cetera.

Senator CONRAD. Another would be the cost of environmental litigation directed against the United States. Another potential cost here that could be significant.

Let me just say that there has been a vote called, and I think we will recess now for the purposes of having a chance to go and vote and then return.

Again, I very much appreciate your patience. There is nothing we can do about the schedule of the Senate. We will return at about 3:20 p.m.

[Recess taken.]

Senator BURNS [presiding]. We will call the hearing back to order, and I will ask several questions, and we will see who shows back up. I have just got a couple of questions especially for you folks, and we are trying to address a problem that exists in California which is acute there, and of course it does have effects on Eastern Montana.

We are in our 8th year, although our prospects look a lot better in Montana—a snow-pack in the Rockies on the east front, anyway, is looking a lot better—and maybe we, with a little cooperation between the Bureau of Reclamation—and Secretary Underwood, I would ask you if there has been occasions in this history of the Bureau and the Corps of ever really getting together and working in cooperation on problems such as this whenever you have got a situation that is going to take joint cooperation, when maybe you are in charge of the irrigation district but they are in charge of the reservoir?

If you could explain to me—do you see a possibility? this legislation does not address that at all. Is that a correct assumption?

Mr. UNDERWOOD. I think that is probably pretty fair. I think the only part you would get into it is if, in fact, the State of Montana and the Missouri Basin States took to heart the idea of developing drought contingency plans. Then for our involvement, and obviously the Corps—if you are looking at Federal-State contingency plans—we obviously would be brought into the process in a cooperative effort.

Senator BURNS. H.R. 355 authorizes assistance in water marketing, which is section 101(b). Would the Bureau view this as technical assistance, financial assistance or—what is it?

Mr. UNDERWOOD. Let me make reference to that, and let me take a look at that section.

Senator BURNS. It is 101(b), and it authorizes assistance in water marketing. I would be interested in what your view—would that be as technical assistance, or financial assistance, or how would that be classified?

Mr. UNDERWOOD. Basically it is to help facilitate between willing buyers and sellers—in other words, if you have people and you have facilities that potentially would be needed to transport that water. So it really is as a facilitator.

Senator BURNS. The construction activities authorized in section 101 of H.R. 355 must be completed in 1 year. There is a time limit. Is this realistic, given the need for appropriations and environmental compliance?

Mr. UNDERWOOD. I think what we are looking at is temporary facilities to help offset the effects of drought so that, if we were undertaking an effort in that regard, then it would be relatively short-term in nature, and that also gets into the NEPA compliance. If you are doing something that is temporary, then the chances of not being a permanent facility, or the NEPA compliance relative to permanent facilities, you do have some relief in that regard.

Senator BURNS. If there is something that throws shockwaves to us in the West, it is whenever you start talking about endangered species and NEPA; and I would ask Mr. Sumner, the Bureau raised the issue of a budget agreement as a limitation on deferrals. What is the potential exposure to USDA if an entire region's farm economy goes under as a result of permitting deferrals?

Mr. SUMNER. Of permitting deferrals?

Senator BURNS. Yes.

Mr. SUMNER. As you know——

Senator BURNS. Excuse me, of not permitting deferrals.

Mr. SUMNER. Well, it depends upon what legislation is currently operating. If there were already in place temporary drought assistance sort of packages in an area, then that exposure would be limited by appropriated funds, but we also have appropriations under the Farmers Home Administration and some ASCS programs.

You would have to investigate on a case-by-case basis, but I think it is fair to say that we could have really quite a substantial exposure, to the tune of, certainly, hundreds of millions of dollars.

Senator BURNS. Mr. Edwards, from which other competing uses should the 400,000 acre-feet of water needed by wildlife and fisheries come from?

Mr. EDWARDS. It is my understanding that that water would have to be made available from existing storage that is in place.

Senator BURNS. Has U.S. Fish and Wildlife established water rights on that 400,000 feet?

Mr. EDWARDS. Not that I am aware of, sir.

Senator BURNS. Would that have to be done first?

Mr. EDWARDS. I do not know. I would defer to Commissioner Underwood. I am not aware of what the answer to that would be.

Mr. UNDERWOOD. We are in the process of developing a feasibility study on where those water supplies would come from. In most cases of the wildlife refuges it probably would be in a conjunctive use operation, surface and ground water.

We do have some uncontracted water out of the Central Valley Project, but you would probably be looking at a conjunctive use operation and you would have some additional facilities that would be needed to even provide that level of water.

Senator **Burns**. That is about all my questions. I cannot think of anything else I need to cover. Like I say, we have our situation in Montana. Our Fort Peck Reservoir is quite low, and, of course, so is the Missouri. I talked to some friends the other day that had been out on the Bighorn fishing, and they said the Bighorn is high right now, which is basically good news.

I wonder, Mr. Underwood, what your attitude is on off-stream storage at the present time? We have areas in Montana, and I know there are some areas in California, that could be used for off-stream storage, and those reservoirs filled by gravity fairly economically.

What is the Bureau's attitude on that? Could you give me an update on any plans along that line on some of our main rivers? I know that nobody wants to dam those rivers. In fact, I would die before I see the Yellowstone dammed, but there are some areas off the Yellowstone that could stand off-stream storage.

Mr. **Underwood**. It does provide an opportunity. Now, we are going to be meeting some of our future water resources needs, obviously through some of the water conservation, some of the coordinated project operations, but an area that you are pointing out—how do you make more effective and efficient use of waters that are already available, especially during high years?—that type of off-stream storage does provide that opportunity.

I think it is pointed out in some of our drought experience in this past year, the need for additional conservation, whether it is underground, whether it is on-stream or off-stream. There are some real opportunities for making greater use of conserving some of the high-flow years so that you can mitigate dry-year conditions.

Senator **Burns**. Is there any reason why the Governors of Washington, Idaho, Oregon, or Montana, must first consult with the BPA—the Bonneville Power Administration—prior to making their requests for drought assistance, and should other States consult with the WAPA first?

Mr. **Underwood**. You would probably have to ask those Governors. I know that people are concerned. Any time you are talking about drought contingency plans, any thing that is different from the normal, everybody wants to be consulted, and I think in those particular cases, sensitivity to the Pacific Northwest, and I think that is why that provision was potentially added, you would have to ask the Governors if it is really needed.

Senator **Burns**. I have no further questions, Mr. Chairman. It is nice to see you home.

Senator **Bradley** [presiding]. Thank you very much, Senator Burns for Chairing in my absence.

Let me if I could turn to some of the legislation that is before us, in particular S. 711, section 4(2). It imposes new restrictions on Federal authority by requiring as a matter of Federal law contractor concurrence before the Secretary may undertake water conservation or management activities. In your view, does it? Is that what the language says?

Mr. **Underwood**. Mr. Chairman, you are on section 4(2)?

Senator **Bradley**. Section 4(2).

Mr. **Underwood**. Okay, let me——

Senator **Bradley**. As I read it, it seems to say that before the Secretary can do any kind of conservation or management, the contractors have to agree.

Mr. **Underwood**. It appears that is the reading.

Senator **Bradley**. That means if you have 10 contractors and 9 agree but 1 does not, you cannot undertake the conservation or the management?

Mr. **Underwood**. Without reading some of the other sections, I think what it is doing is that, probably the impacts—third-party impacts—in terms of other contractors—if there is water available, are you taking away—are you meeting—are you potentially providing for their needs to be met. And I am assuming your reading is correct.

Senator **Bradley**. In order for any one to participate, all have to participate?

Mr. **Underwood**. It appears that way. They are talking about concurrence with affected contractors, so if it was impacting their water availability.

Senator **Bradley**. How much conservation do you think you are going to achieve?

Mr. **Underwood**. I think if you are looking at the needs and I think a lot of people now are—probably with a certain amount of reality—granted that you are looking at some extreme conditions in hydrologic conditions, meaning fifth year of an extraordinary drought. And when you start looking at how do you abide by future droughts and what are our opportunities, obviously water conservation is going to be very key. So I think it is in everybody's best interest. I do not really see that people would look at that as granted when you are looking at that reading. But I think you are going to get consensus from people. I mean how are we going to meet those needs. And it has to obviously come from more effective, efficient use—some of the things that Senator Burns was talking about—offstream storage—things that you are very interested in—conjunctive use of sources of ground waters.

Senator **Bradley**. That section does not trouble you?

Mr. **Underwood**. I would hate to see that something in terms of water conservation that nobody would be—it is hard to be against motherhood unless it really had some—I am trying to think if there is some kind of other impact—third-party impact that I am not looking at right now.

Senator **Bradley**. Why don't you take a look at it and please get back to us on the question?

Mr. **Underwood**. Sure. More than happy to.

Senator **Bradley**. In S. 711 as well, it gives the Secretary the authority to defer repayment of project operation and maintenance cost without interest. The administration bill would require interest on deferred payment—the bill I introduced for you. The question is do you support deferral without interest?

Mr. **Underwood**. I think the bill, Mr. Chairman, that you have there is no deferral of payments. I think it is in terms of water. The cost of water is with interest, but if I recall in S. 586, there is no deferral of contract payments or loans. Again, we get into the pay-as-you-go. We struggled. We struggled very hard with how do you come up with offsets in those particular cases?

Senator **Bradley**. Would you oppose or support deferral of interest?

Mr. **Underwood**. In terms of what is in S.——

Senator **Bradley**. S. 711 says, no, you do not have to pay interest.

Mr. **Underwood**. Our bill does not include—I mean the bill that was advanced by the Administration does not include any deferral. We just did not believe, given the pay-as-you-go provisions, that we could entertain that.

Senator **Bradley**. The next worse scenario would be deferral without interest?

Mr. **Underwood**. Again, it comes up to offsets and recognizing this provides some real personal hardships, but we could not fashion anything that would be for offsets.

Senator **Bradley**. Section 9 in S. 711 allows the Secretary to defer some or all of the repayment of the no or low interest loans authorized under the section if the Secretary deems it is "necessary due to financial hardship caused by the drought." The question here is what is financial hardship?

Mr. **Underwood**. I guess business failure. I mean there is no definition. Correct.

Senator **Bradley**. Is it any financial hardship? What if you manage the project so poorly that you create a disaster and then you claim financial hardship? Do we just defer the interest because you claim you had financial hardship?

Mr. **Underwood**. Correct. There is no definition of hardship here.

Senator **Bradley**. At a minimum, there has to be more precision in the definition of the term "financial hardship," wouldn't you agree?

Mr. **Underwood**. Correct.

Senator **Bradley**. S. 711, section 11, contains a waiver of the National Environmental Policy Act. Is that a good idea?

Mr. **Underwood**. We believe that——

Senator **Bradley**. That is a nice easy question.

Mr. **Underwood**. Let us go back and look at two previous acts, 1977 and 1988. The 1977 act, I believe, had a deferral or an exemption to NEPA compliance, also provided for appropriations. And in the particular case of the 1988, I do not think there were any appropriations and I do not think that there were any exemptions to NEPA compliance. We believe that there are provisions within NEPA to handle emergency conditions and that this probably would not set a good precedent. I guess in the particular case you need some testing as to whether that really does present an obstacle. Can we work within the provisions, meaning within the Council on Environmental Quality? Can we streamline those positions so that we do not get into any kind of undue delay in implementing? So we believe that an exemption would be a poor precedent.

Senator **Bradley**. A poor precedent?

Mr. **Underwood**. That is why you do not see it in S. 586.

Senator **Bradley**. In H.R. 355, there is a section that authorizes the Federal Government to provide water for privately owned habitat. Does that make sense to you?

Mr. **Underwood**. I guess it depends on what you call private habitat. I guess—read your next question and that may help me.

Senator **Bradley**. What is the definition of private habitat? At a minimum, we need to define private habitat.

Mr. **Underwood**. You need to define it, yes.

Senator **Bradley**. The private habitat could be my lawn. I might have very rare insects on my lawn, and would need Federal water to water my lawn.

Mr. **Underwood**. Correct.

Senator **Bradley**. S. 711, section 8 authorizes no or low interest loans or grants to anyone for anything that prevents or mitigates the adverse impacts of the drought.

Mr. **Underwood**. What section is that?

Senator **Bradley**. Section 8. Low interest loans or grants to anyone for anything that prevents or mitigates the adverse impacts of the drought. Does that mean that I could get a low interest loan—and this is an absurd example, but it makes the point—to float an iceberg down from the north to California? As I read that section, it says anyone and anything, including icebergs.

Mr. **Underwood**. That needs some tightening.

Senator **Bradley**. Yes, I think this provision probably does need some tightening. The basic premise of these bills is that you do not have the authority to do anything that is needed during a period of drought. I would not say that you do not have sufficient authority. My question to you is do you view any of the authorities granted to you in S. 711 or H.R. 355 as redundant?

Mr. **Underwood**. I think in some cases which you were talking and looking at all the bills basically, Mr. Chairman.

Senator **Bradley**. I am speaking specifically of S. 711 and H.R. 355.

Mr. **Underwood**. I think in some cases you are looking at study provisions, that we have the authority potentially to study some of the—and I have to go back and look at some of the provisions again—but if you are entering into agreements to accomplish something out of those studies, then you may need some additional authority. When you start looking at the Warren Act, whether it is permanent or temporary, that is basically what you are looking at. That is something that definitely is needed.

Some clarification probably in terms of, you know, there is reference there to purchase some water and the Reclamation Act, section 7, allows you to acquire property. It is usually under a condemning process. I would not necessarily consider that willing buyers and sellers, I guess. Some clarification as if you were in fact including that as to that authority, because that could be—it could be raised in question whether you have the authority potentially in purchasing water for fish and wildlife or for any purpose—drought litigation.

Senator **Bradley**. Your response leads into another question related to section 16 of S. 711. As I read that section, the Secretary is authorized to make a profit from the sale of water. Is that a good idea?

Mr. **Underwood**. I think in the particular case, we are trying to provide water for the cost of service. I mean that changes the principles. I am trying to think whether we are talking about it in here. I think some of it had to do—well, I would have to refresh my memory.

Senator **Bradley**. If you could get back to us on that, it would be very important. I would like to help, but at the same time I would like to have a clearer picture of what the committee is being asked to do here. I think some of these questions and probably more could provide more clarity. I realize, however, due to the delay and its effect on witnesses' travel arrangements, we have to move the hearing along. I would like to submit a few more questions to you regarding your specific reading of the legislation and whether you support those particular provisions.

Mr. **Underwood**. I would be more than happy to do that, Mr. Chairman.

Senator **Bradley**. Let me turn to Mr. Edwards if I could. Do you think the Federal Government should be supplying water for privately owned habitat?

Mr. **Edwards**. Well, certainly in the case of the Central Valley, the Service has wetlands easements out there which are private and approximately I think about two-thirds of the wetlands that are available in the Central Valley are on private lands. So from that perspective, it would certainly benefit particularly the wildlife resources that would utilize those lands.

Senator **Bradley**. A key question then would be how do you define private habitat?

Mr. **Edwards**. Well, I guess that would probably be the trick to do that. There might be other instances where you might not want to do that though.

Senator **Bradley**. Basically what you are saying is that private habitat might include some easements, but would not include my backyard?

Mr. **Edwards**. Well, not unless your backyard might be a wetland, then you might want it to be included within the provisions.

Senator **Bradley**. It is not quite clear to me. I take your point and I think it is a legitimate point. We need to work on this point.

Mr. **Edwards**. I would agree that the definition is not clear, but I guess the point I was trying to make was that certainly private lands, particularly in the Central Valley, are very important and critical to particular wildlife species out there.

Senator **Bradley**. As such, the provision of water for wildlife, at least from your perspective on private habitat, makes sense.

Mr. **Edwards**. Yes, sir.

Senator **Bradley**. Good. I am very glad you are here to clarify that provision, because as I read it I said I thought we are talking about backyards with insects. But if we are talking about existing lands that are wetlands, I think that is a very good point. Could you help us tighten the definition of private habitat so it is clear to anyone reading that provision?

Mr. **Edwards**. I would be pleased to provide assistance.

Senator **Bradley**. Let me turn to the Department of Agriculture, Mr. Sumner. Welcome. Could you tell me if there are any Federal programs specifically designed to provide financial assistance during a drought?

Mr. **Sumner**. We have a number of programs that are potentially in place currently. For example, the Farmers' Home Administration has programs. Currently there is no declaration for us to provide funds, in the case of the California drought. There have been, as you are aware, fairly regular special drought legislation. But we do not have anything in place now to deal with the current situation.

Senator **Bradley**. Do you think the Department of Agriculture is the appropriate place to locate a mechanism for farmers or local business that might be dislocated because of changes in water policy?

Mr. **Sumner**. Well, we would have to look at this. It really does depend on the specifics of any particular situation. We have various assistance funds within the Department of Agriculture for lots of situations. But it depends on really the specifics.

Senator **Bradley**. Under the Farmers' Home Administration Program you mentioned, have a lot of people applied for that program?

Mr. **Sumner**. On occasion, in some particular situations, yes. Currently, with respect to the drought situation in California, we are not making any loans. We are making some loans under the freeze, for example, from last winter. There was an emergency declaration.

Senator **Bradley**. But none on the drought?

Mr. **Sumner**. No, there has been no declaration for that drought. There needs to be, as I understand it, an emergency declaration. But in order to clarify this, I need to get back with the Farmers' Home personnel.

Senator **Bradley**. If you could give us a report on how many loans have been made in the last 5 years, I would appreciate it.

Mr. **Sumner**. Sure.

[The information referred to follows:]

The Farmers Home Administration (FmHA) can make emergency loans in counties where physical property loss or damage and/or severe production losses occur as a result of a natural disaster that substantially affects farming, ranching, or aquacultural operations. Emergency loans will be made available to producers experiencing such losses in a county named by the Federal Emergency Management Agency (FEMA) as eligible for Federal assistance, under a major disaster or emergency declaration by the President, where a natural disaster has been declared by the Secretary, or when the FmHA administrator determines that such losses have occurred.

To qualify for an emergency loan, the applicant must be an established family farmer, demonstrate the ability to repay the loan, provide evidence of substantial loss to an essential part of the operation, and be unable to obtain suitable credit elsewhere.

The average of annual obligations over the past five years for the Emergency Disaster Program is $107.2 million. About 2,800 loans are made annually. Through April of the 1991 fiscal year, $46 million has been obligated. These amounts compare to average annual obligations of $2.3 billion during fiscal years 1979-84. Tighter budgets and a tightening of the program are causes of the drop.

Emergency Disaster Loans—Actual Obligations and Number of Loans for the U.S.

| | 1990 | 1989 | 1988 | 1987 | 1986 |
|---|---|---|---|---|---|
| Obligations ($million) | 102 | 73 | 29 | 114 | 218 |
| Number of loans | 2,609 | 2,806 | 564 | 2,548 | 5,584 |

In fiscal years 1986-90, there were 118 emergency disaster loans made in the state of California for a total of $8.0 million. Only 4 loans were made in fiscal 1990 for a total of $613,000. A detailed accounting would be required to determine whether the loans were made for freeze or drought.

As of May 30, five California counties remain eligible for emergency loans due to the drought in response to a request by the previous governor. Governor Wilson has not requested a disaster declarasaon for additional counties affected by the current drought.

Senator BRADLEY. Let me thank you all very much for staying through this break. I appreciate your testimony and look forward to receiving answers to some of the questions that we will provide for the record. The sooner you can do that the better, because we do want to move this legislation, and we want to make sure we get it right.

Mr. UNDERWOOD. Mr. Chairman, I would like to underscore the sense of urgency like I indicated to you before. There is a sense of urgency in this.

Senator BRADLEY. We feel very keenly the same sense of urgency and hope we will be able to move the bill quickly.

Our next witness is Douglas Wheeler, secretary, California Resources Agency, Sacramento, California. Mr. Wheeler, welcome. I am sorry that you had to wait so long, and my apologies. We will also go to the Mayor of Santa Barbara and to Mr. Willardson of the Western States Water Council.

## STATEMENT OF DOUGLAS WHEELER, SECRETARY, CALIFORNIA RESOURCES AGENCY, SACRAMENTO, CA

Mr. WHEELER. Thank you, Mr. Chairman. I am pleased nonetheless to be here and appreciate your interest in this very important subject and the leadership you have provided in helping address the drought situation in California. And we are also grateful to Senator Seymour for his leadership and to the other members of the California delegation which have helped us to address this question.

If you do not object, Senator, I would like to submit my statement for the record, and then just attempt to summarize that and respond to whatever statements you may have.

Senator BRADLEY. Your statement will be in the record in full, and I welcome your summary.

Mr. WHEELER. My purpose really is threefold. Very briefly, first, to provide an update on the drought situation in California. Second, to bring you up to date on the steps that the State has taken to deal with the drought—this subsequent to my last visit to Washington on this subject in February. And then finally, with respect to the bills before the committee to deal with those measures which we think the Federal Government should take to assist the State in its efforts, particularly with respect to operation of the water bank.

I think you are aware, Senator, and the other Members of the committee, that notwithstanding a very remarkable rainfall in March when we had 292 percent of normal precipitation, the situation in California remains quite severe, both as regards anticipated precipitation for the remainder of this year and with respect to the current capacity of our reservoirs.

That point is underscored by information that was handed to me just this afternoon by the Bureau of Reclamation which has just published its May Westwide Water Condition Survey. And this map I think demonstrates more graphically than anything I could suggest the severity of the problem, not just in California but with reference to the other Members' interests, Westwide. But in California you will see that about two-thirds of the State now fall within the——

Senator **Bradley**. If you could turn the map so I could see it, I would appreciate it.

Mr. **Wheeler**. The Palmer Index, which is the standard indices of drought severity, indicates that in a level below 4 or extreme drought, California now—in all of southern California at least—falls within that category—the extreme drought category. Palmer Index 3 or 2 to 4 is the moderate to severe drought. The balance of the State falls within that category. So we are in a quite difficult situation, both with respect to rainfall and precipitation and with respect to reservoir capacity.

As you know the State's plans are premised on the assumption that we may have, yet, a sixth year of the drought to confront. And for that reason, all that we have done——

Senator **Bradley**. Excuse me. I was going to ask a question, but I think you will answer it in your testimony.

Mr. **Wheeler**. All that we have done has been focused on a long-term water supply situation which meets the exigencies of a continuing drought, and most notably the establishment of a water bank which has given the State more flexibility in dealing with this problem than we had a year ago at this time. As you know the water bank was intended to achieve a voluntary transfer or reallocation of water from agricultural uses primarily to other uses which would be determined at the Governor's discretion.

In light of the current emergency, those other uses are municipal and industrial agricultural fish and wildlife which are critically stressed by the drought and for carry over. And I want to underscore carry over, notwithstanding again the March rain, but for the fact that we have had the water bank now at twice what we had expected to achieve with the water bank. That is, we have got about a million acre-feet as opposed to the 500,000 we had set out to accomplish. That margin of difference, if you will, really does give us assurance that we will have more carryover into the next year of drought than we had coming into this year. And that has been a principal focus of the State's program for dealing with the drought.

I want to say in connection with the content of these bills and the subject of this hearing, that our drought action plan and the work of the drought action team which resulted in the establishment and the administration of the water bank has been very much assisted by the participation of the Federal Government.

You have already indicated and the committee knows well that water supply in California is not strictly a matter of State policy or State administration because of the very strong presence of the Central Valley Project and the involvement of the Bureau of Reclamation. And so the Governor invited the participation of the Federal Government and the drought action team, and their participation has made possible the success of the water drought and to some degree coordinated planning for the drought and for long term water supply in the State.

I am here to day to underscore, number one, the urgency of providing to the Federal agencies, the financial assistance that they need to discharge their obligations in California with respect to the drought. And then also to encourage a liberalization of the authorities of the Secretary and the Bureau of Reclamation to participate in this cooperative effort, and specifically with the water bank.

We indicate that they have been cooperative. We have had no difficulty in that regard, but in a couple of specific instances the Bureau tells us and the Secretary has told us that we need additional authority. And we would urge that the committee confer that authority, specifically to undertake construction, management, and conservation activities that will mitigate losses and damages for the drought, to purchase water from willing sellers, including reclamation contractors and the authority to participate in the State-established water bank, to make project and nonproject water available for protecting or restoring fish and wildlife resources and to construct temporary barriers and take other cooperative actions with the State as may be needed to prevent saltwater intrusion and to improve water quality in the Sacramento-San Joaquin Delta.

Let me say that working together, we are confident that the State's priorities can be achieved with the assistance of the Federal Government and the Bureau of Reclamation in its administration of the Central Valley Project consistent with the policies and the goals of the State Water Project.

Let me conclude by adding two additional suggestions for your consideration, sir. First, that the Warren Act be amended to clarify that reclamation storage or carrying capacity in excess of requirements of water users entitled to the delivery of water from a reclamation project can be made available by contract to water entities furnishing water for fish and wildlife, irrigation, municipal—industrial, domestic or other beneficial uses—a change in the operating authority for the Bureau of Reclamation.

And then second, that the Secretary authorize—be authorized to commence design and construction of the temperature control facility at Shasta Dam. It is somewhat disquieting to hear the statement of Mr. Underwood that this is yet to be decided by the Department, and also to hear him suggest that there has not been a decision made about funding for the project. We believe it absolutely essential to cope with the effects of the drought upon fish and wildlife that that project proceed expeditiously and that it be funded.

Let me conclude by underscoring again the urgency of this matter, given the severity of the drought, given the likelihood that we will confront yet another year of drought in California, given the stress upon a variety of California's resources precipitated by the drought, and the urgency to enforce, if you will, through the conferral of important statutory authority cooperation between the State of California and the Federal Government. While the March storms reduced the severity of the drought, they did not erase the iron grip of 5 years of drought in the State. We must as well assume that both the State and the Federal agencies are prepared to use appropriate emergency authorities and programs if the drought extends into 1992.

[The prepared statement of Mr. Wheeler follows:]

## PREPARED STATEMENT OF DOUGLAS WHEELER, SECRETARY, CALIFORNIA RESOURCES AGENCY, SACRAMENTO, CA

Mr Chairman, members of the Committee, my name is Douglas Wheeler. I am the Secretary of the California Resources Agency, and a member of Governor Pete Wilson's Cabinet. I appreciate the opportunity to present testimony today on behalf of Governor Wilson and the citizens of California.

On February 18, 1991, I presented California's testimony on the 1991 drought at a hearing before the House Committee on Interior and Insular Affairs, Subcommittee on Water, Power and Offshore Energy Resources. That testimony described California's drought conditions in mid-February, and outlined a number of ways the Federal Government could help California by providing financial assistance and other resources. In my testimony today; I will provide an update on drought conditions in California, on steps the State has taken, and will continue to take, to lessen the drought's severe impacts, and on measures the federal government can take to assist the State of California in this endeavor.

As you know, California is in its fifth year of drought. Its impacts are evident throughout the state. Fish and wildlife populations are severely stressed, while urban and agricultural users have been asked to make, and have made, significant curtailments in water use.

While it is true that the March storms did much to temporarily alleviate the extreme water shortages that many user groups in California's fish and wildlife resources have been facing, the drought is still very much with us. If anything, the storms may have instilled the misplaced notion that purposeful response to this problem can now be relaxed. Allow me to illustrate this point with some statistics from the May 1st update on California's water conditions provided by the State Department of Water Resources.

The March storms generated precipitation that was 292 percent of normal. But April's precipitation, in sharp contrast, was far below normal, and runoff for the current water year that extends until the end of September is projected to be only 45 percent of average. Perhaps even more revealing, reservoir storage at the first of this month stood at 65 percent of average, in comparison with 72 percent at this time last year, the fourth year of the drought. We are still very much experiencing a downward trend. Faced with this kind of data, we cannot afford—and the point cannot be overstated—to assume that the so-called "March Miracle" has signalled the end of the drought.

Still, the March storms did provide a measure of flexibility in making our water allocation decisions. On April 5, 1991 Governor Wilson announced that the State Water Project would increase its deliveries to municipal and industrial users from 10 percent to 20 percent of the requested amounts, allowing some urban suppliers to reduce the severity of mandatory rationing.

Moreover, many, if not all, small communities which utilize their own collection and distribution systems now have sufficient water to carry them through the summer with rationing. Prior to the March rains, the possibility that these communities would run out of water by May was very real, indeed. Finally, the March storms have enabled the State Water Project and others to maintain some carryover storage in reservoirs to help protect against the distinct possibility that the drought will continue into 1992.

The March miracle notwithstanding, the State of California continues to be aggressive about its drought policy. In February, just prior to hearings on the drought before the House, Governor Wilson requested urban water suppliers to voluntarily prepare drought emergency plans which would address a worse-case scenario of up to 50 percent cutbacks in water, and to submit the plans to the Department of Water Resources. These plans were requested from the State's 300 largest urban water suppliers; nearly 240 have responded.

Most of the plans are comprehensive, and include elements such as staged implementation, penalties for excessive water use, and mandatory reductions in water use. Some plans, however, were vague or incomplete; others simply could not be considered plans.

To ensure, consequently, that all large urban water agencies develop comprehensive drought plans, the Department of Water Resources is developing state legislation which would require more extensive drought and emergency planning by urban water agencies. The legislation would amend California's Urban Water Management Planning Act to require urban water suppliers to develop contingency plans of up to a 50 percent reduction in local water supplies. These plans would have to be developed by December 31, 1991 and updated every five years. In addition, the Department has updated its "Urban Drought Guidebook" and has distributed it to local agencies statewide. The Guidebook provides suggestions on evaluating existing water supplies, developing emergency supplies, and reducing demands for water.

Conservation and good planning are the foundation of California's drought policy, but perhaps our most significant achievement has been to establish the Drought Water Bank. Governor Wilson created the Water Bank on February 15, 1991 with input from the inter-agency Drought Action Team he had formed to develop drought-relief strategies. The Bank's purpose is to purchase water from willing sellers in order to redistribute it where it is needed the most.

This effort has been tremendously effective. To date, almost one million acre feet of water has been sold into the bank, and about half of that has been resold to needy users. Water for the bank has come from the following sources:

- Agreements with Farmers to fallow crop lands. Payments for water are based on the consumptive use of different crops.
- Water purchased from reservoir storage of local water districts.
- Water made available by the exchange of groundwater for surface water, which is then transferred to the Bank.
- Ground water purchased and pumped directly into conveyance systems.

Bank water has been allocated according to the following criteria:

- Critical urban needs, as identified by urban water suppliers with less than a 75 percent supply.
- Critical agricultural needs, including the use of water to assure survival of permanent crops such as trees and vines.
- Critical needs for fish and wildlife.
- Carry-over storage in reservoirs in case the drought continues into 1992.

The Water Bank has been a key program in our effort to combat the drought, and it should help us get through a very difficult period. It demonstrates that large-scale water transfers can help to meet short-term critical needs related to the drought. Importantly, it also holds some instructive lessons about the longer-term role of market-driven water transfers in reallocating water to where it is needed most. These lessons will undoubtedly prove invaluable when we finally move away from managing the current crisis towards thinking more broadly about long-term water strategies.

While the Bureau of Reclamation has been cooperating in the State's efforts to establish a water bank, the Secretary of the Interior needs additional authority similar to temporary powers available under the Emergency Drought Act of 1977 (P.L. 95-13). Specifically, the Secretary should be granted:

- The authority to undertake construction, management, and conservation activities that will mitigate losses and damages from the drought.
- The authority to purchase water from willing sellers, including reclamation contractors, and the authority to participate in state-established water banks.
- The authority to make project and non-project water available by temporary contract for use within and without authorized project service areas.
- The authority to make project and non-project water available for protecting or restoring fish and wildlife resources within or without authorized project service areas.
- The authority to construct temporary barriers and take other cooperative actions with the State of California as may be needed to prevent salt water intrusion and improve water quality in the Sacramento-San Joaquin Delta.

These temporary powers should remain in effect until the drought is over. In 1977, the expiration date of the Drought Emergency Act had to be extended. Sufficient flexibility should be included in case the drought extends into 1992.

In addition to these temporary authorities, the Secretary should be given permanent authority to conduct studies to conserve water supplies on federal reclamation projects, and to prepare drought contingency plans which address the following:

- Establishing or participating in state-established water banks.
- Water conservation actions.
- Use of reclamation project facilities for storage and to convey water to project and non-project users.
- Temporary and permanent supplies of water for fish and wildlife.

The contingency plans should identify those cases and circumstances that are exclusive federal responsibilities and those which are not constructed or governed under federal reclamation law. This identification should be developed in consultation with the State of California.

Finally, it is my belief that two other important considerations should be addressed in the legislation that emerges from this and subsequent discussions.

- The Warren Act should be amended to clarify that reclamation storage or carrying capacity in excess of the requirements of water users entitled to delivery of water from a Reclamation project can be made available by contract to water entities furnishing water for fish and wildlife, irrigation, municipal, industrial, domestic, or other beneficial uses.
- The Secretary should be authorized to commence design and construction of the temperature control facilities at Shasta Dam. Sufficient funding should be authorized to at least allow for the placement of devices to anchor the temperature control facilities to the dam. The low water levels presently in Shasta Dam make it desirable to proceed expeditiously with the installation of these facilities.

It remains urgent to enact legislation giving the Secretary the authority outlined above to cooperate with the State of California in combating the drought. While the March storms reduced the severity of the drought, they did not erase the iron grip of five years of drought on the State. We must as well assure that both the State and the federal agencies are prepared to use appropriate emergency authorities and programs if the drought extends into 1992.

I appreciate the opportunity to be here today and your interest in helping the State of California cope with the drought.

Senator BRADLEY. Mr. Wheeler, let me thank you very much for your testimony and for your help on this and other legislation. I really appreciate your cooperation.

In reading these bills, both S. 711 and H.R. 355, there are a number of things that are authorized here under the guise of drought legislation. In a State such as California that is a dry State in the literal sense, it seems to me that those authorities should not be limited to drought legislation but should be authorized generally.

For example, one section, Water Purchases by the Bureau, provides that, in order to minimize losses or damages resulting from drought conditions, the Secretary may purchase water from willing sellers, including water made available by Federal Reclamation Project contracts through conservation or other means with respect to which seller has reduced the consumption of water.

In other words, the Secretary can buy water from the willing sellers in the Bureau's area, the CVP, and then make that water available. Why couldn't the State buy the water from the Federal holders in a non-drought period?

Mr. WHEELER. A couple of different questions, there, I think.

One, as to the nature and extent of the authorities we are attempting to confer here, I very definitely believe that the Secretary ought to have permanent authority to do those things which would bring water management within our State into consistency with that, which is the objective of the State Water Project and State water policy overall. Those could be couched, of course, as standby authorities for use when an emergency occurs or when an emergency is declared by the Governor, perhaps in consultation with the Secretary.

As regards the authority of the Secretary to acquire water, I am not certain that that is either necessary or desirable. Our objective here is to facilitate the Secretary's participation in the establishment of a State water bank, and we would like very much to have access to water now flowing through the Federal system, of course, but I think the State would have the capacity to do that if the Secretary would be authorized to deliver that water.

We certainly would not see the need for the establishment of a redundant Federal water bank to be operated side by side with the State bank.

Senator BRADLEY. Essentially, you need an authorization to transfer water through the Federal system to the State Water Bank.

Mr. WHEELER. Correct. Because we have been told by the Bureau and by the Secretary that he does not now have that authority. Obviously, we would like the water in this case to be as fungible as possible in order to meet our objectives during the drought.

Senator BRADLEY. Your comment is very helpful. In terms of the dry years, when you do have a drought, how should you set priorities as to who gets the water?

Mr. WHEELER. That is the $64 question, of course, and it is one with which we are attempting to cope right now. The Governor made a quite, I think, straightforward decision with respect to the water bank. That we would identify those water needs from which, or to which, water from the water bank might be applied, and have proceeded to make allocations from the water bank consistent with our identification of priorities at a given time during the drought.

Clearly, all of this has got to be conditioned on the contractual relationships with individual water consumers with respect to both the State project and the Federal project. But I can tell you, Senator, that from the Governor's standpoint, at this time we are giving very high priority to the protection of fish and wildlife values. Because, as we have been able to meet minimal needs for the so-called NMI users, we have been able to meet minimal uses for agricultural. We are no able at this point to do so for fish and wildlife because they are not automatically beneficiaries of the water bank. They are not in the market acquiring water on their own behalf, it goes without saying.

So the Governor has made a decision to spend State funds to buy water from the water bank for that purpose, and we are particularly concerned with maintaining in-stream flows and in maintaining adequate water in the wetlands which supply the Central Valley flyway.

Senator BRADLEY. As you know, I think that is commendable.

I think the State should set the priorities, and I assume you agree. In a dry period, the State should set the priorities.

Mr. WHEELER. We agree that the State should have responsibility for the development of a water management plan which meets the State's needs.

Senator BRADLEY. The State should also set the priorities as to whether it is fish, wildlife, agriculture, industrial, whatever that will take first.

Mr. WHEELER. Correct, and we have been encouraged by Secretary Lujan's statement to the effect that he agrees with that proposition.

Senator BRADLEY. If the State should take the lead in setting the priorities, what do we do about the long-term water contracts that might be contrary to those priorities?

Mr. WHEELER. I think those contracts have to be honored. I do not think there is much question about that, Senator.

Senator **Bradley**. You start with the base of honoring the contracts.

Mr. **Wheeler**. At least insofar as the Central Valley Project is concerned, yes.

Senator **Bradley**. Right. The way you might free up water tied to long-term contracts is by encouraging those who have the rights to the water to use it in a way that is consistent with the State-set priorities.

Mr. **Wheeler**. Or to offer incentives to them so that they might voluntarily reallocate their water, as occurred during the water bank. And I have to say that the success of the water bank, which I have attempted to describe to you here, is in large measure dependent, so far this year, on the voluntary participation of California's farmers.

Senator **Bradley**. What you are telling me is that a participant who holds water rights in the CVP should be able to sell those water rights to the State Water Bank.

Mr. **Wheeler**. Correct. At a price that is agreed upon between the water bank and the individual owner of those rights.

Senator **Bradley**. Do you see anything that now prevents that from happening?

Mr. **Wheeler**. My understanding is that it is not prevented as a matter of contract. It may be prevented as a matter of delivery from within the Central Valley Project to the State Water Project.

Senator **Bradley**. The difficulty is that you could have a willing seller and a willing buyer, but no way to get the water from the seller to the buyer.

Mr. **Wheeler**. Correct. And that is one of the needs addressed by this legislation.

Senator **Bradley**. What you need is the authority to move the water through existing facilities to the water bank.

Mr. **Wheeler**. Correct.

Senator **Bradley**. But under the law, under the existing authority, it is your belief that a CVP water rights holder could sell the water to the State Water Bank.

Mr. **Wheeler**. That is my understanding, and I further believe, Senator, that several have done so or have contracted to do so for participation in our water bank.

Senator **Bradley**. Picking up on your comment on what the State has done in prioritizing fish and wildlife as a purpose, how do you decide whether it is fish or wildlife or federally subsidized crops or other private interest? How do you begin to make those decisions?

Mr. **Wheeler**. It is a very difficult——

Senator **Bradley**. I found Mr. Underwood's description of how much water was cut this year particularly hard hitting. Instead of 7 to 8, it is 3.4 million acre-feet The most severe cut was sustained by municipal and industrial use--50 percent; agriculture by 25 percent. If ultimately the State is going to set the priorities, it would be helpful for me to know since it will involve setting some of the priorities for the Federal water project as well. How do you go about setting those priorities?

Mr. **Wheeler**. We make a decision based, obviously, on the demand and the supply at a given time. It is hard to generalize—

and I would not want to generalize at this point—about a set of priorities that would be applicable under all circumstances at all time.

I can tell you that we have had to deal with those questions in the State, week by week, month by month, and it is the mechanism like the water bank which gives us that flexibility. You probably know that the State Water Project has delivered no water to agriculture this year.

We have had the flexibility under our contracts to do that. We have reduced at one point our deliveries to municipal and industrial users by 90 percent. Thanks to the water bank, we have been able to increase that from a 90 percent reduction to an 80 percent reduction. In fact, we have made those determinations based on supplies available to us and the urgency of the needs, the availability of alternative supplies.

Right now we are buying water out of the water bank, as I have said, because the need of fish and wildlife resources is critical and it is not a need that is otherwise being met in the State, which has got to be one of our important considerations. I do not know that the situation would be the same a month from now or a year from now, but I do know that we and the Federal system have got to have the flexibility and the ingenuity, frankly, to respond to changes in these conditions as they continue to occur.

Senator **Bradley**. The preproject water right holders evidently were cut 25 percent.

Mr. **Wheeler**. By the Bureau.

Senator **Bradley**. By the Bureau?

Mr. **Wheeler**. Correct. Other classes of users have been cut by as much as 75 percent.

Senator **Bradley**. Seventy-five percent. The present percentages reflect, in your view, the right priority?

Mr. **Wheeler**. Well, that reflects the contractual obligation of the Central Valley Project.

Senator **Bradley**. Which is consistent with what you said just a few minutes ago?

Mr. **Wheeler**. Correct.

Senator **Bradley**. Here we have a drought and we have drought legislation which contains low-interest loans and debt forgiveness. The effect of these provisions is to reduce the cost of irrigation water. Do you think that is a wise thing to do? Usually when you have a shortage in supply, price goes up.

Mr. **Wheeler**. I can address that question only again from the perspective of the State Water Project and the laws which pertain to it. The water bank is being operated at market. That is to say, we acquired water from willing sellers and sold to willing buyers at a price that was mutually agreed upon.

Senator **Bradley**. But you capped the price for water, didn't you?

Mr. **Wheeler**. We did not cap it.

Senator **Bradley**. You did not cap it?

Mr. **Wheeler**. We did not cap it.

Senator **Bradley**. What is the average price?

Mr. **Wheeler**. $125 an acre-foot.

Senator **Bradley**. And that was not capped?

Mr. **Wheeler**. It was not capped. And in addition to that, we do not deliver subsidized water to any of our customers. As you know, it is not a function of the State Water Project to do so, even in normal times.

Senator **Bradley**. As you look out at the next year, you are going to be there.

Mr. **Wheeler**. I hope so.

Senator **Bradley**. As you look at what could potentially be the 6th year of a drought, you have to begin to make contingency plans now, I assume.

Mr. **Wheeler**. We have begun to make those plans, Senator.

Senator **Bradley**. What are they? Can you share them with us?

Mr. **Wheeler**. Yes. The principal objective is to have sufficient carryover in the State system as a result of the water bank that we will be able to meet our critical needs next year. And because of the success, the extraordinary success really of the water bank, in that we have achieved twice what we had set out to achieve, we will have that margin for next year.

We are continuing to invite participation in the bank because we do not believe frankly that we could have too much water to carry over into the next year, if and when it becomes necessary. I would rather have too much than too little, obviously, as we begin the sixth year of a drought.

Senator **Bradley**. So you have how much more, 500,000 acre-feet?

Mr. **Wheeler**. We have in total and have already begun to deliver from a bank that totals about a million acre-feet. We had hoped to achieve 500,000 acre-feet and we had hoped to carry over roughly a quarter of that number, now about 250,000 acre-feet. I think we will be able to do that without any difficulty.

Senator **Bradley**. You will carry over 250,000 acre-feet?

Mr. **Wheeler**. At least, at least.

Senator **Bradley**. How do you view ideas that surface from time to time during a drought, such as the Columbia River, Alaska, the Colorado as additional sources of long-term water supplies? These ideas have great currency in the midst of the drought as if you could flip the switch and suddenly get water from the Columbia River.

Mr. **Wheeler**. We wish it were that simple, obviously. I will have to tell you that no idea goes unexamined in California with respect to water at this point. I should tell you also that as part of drought planning, the Governor has required, or has requested, that the legislature enact mandatory requirements that every municipal water district in California be prepared to reduce its consumption by 50 percent.

We asked for voluntary reduction in `usage this year, and achieved a quite high degree of voluntary compliance with his conservation mandate. In fact, in many of the largest metropolitan districts, consumption was down in the range of 25 to 30 percent, including the Metropolitan Water District.

The Governor had asked for the development of plans even this year by which municipal users and all users, in fact, would reduce consumption by 50 percent. We had about two-thirds compliance with that request. That is, we had about two-thirds of the district supply plans which demonstrated satisfactorily that they could reduce consumption by 50 percent.

He has asked the legislature to mandate that requirement. Not that we mandate right now for all time a reduction by 50 percent, but that we mandate planning to that eventuality.

Senator **Bradley**. The average sale was $125?

Mr. **Wheeler**. Correct.

Senator **Bradley**. What was the highest sale?

Mr. **Wheeler**. I do not think I could tell you that. $125 became the norm. There were very few serious departures from the norm, either above or below that number.

I will say this, and I will correct it for the record if I am incorrect, I do not think there were sales above $200 an acre foot.

Senator **Bradley**. What would you say was the average profit?

Mr. **Wheeler**. There was no profit in those transactions.

Senator **Bradley**. Willing seller gives water at X dollars. Do you have any numbers on profit?

Mr. **Wheeler**. The difference between sales price and X was the profit. I do not know the answer to that question.

Senator **Bradley**. Is that information available? What we hear——

Mr. **Wheeler**. Probably.

Senator **Bradley**. A criticism of water banking is that if you allow waterholders to sell, suddenly they are going to sell and there will be a gigantic amount of money that they will be raking in. Is that true?

Mr. **Wheeler**. It is certainly true that some farmers and other sellers to the bank acquired the water for less than the price at which it was sold.

Senator **Bradley**. Right. What I would like to know is how much less.

Mr. **Wheeler**. Well, I would like to know that, too. I am not sure that we have that data. If we do, I would be happy to supply it to you. I do not think we require as a condition of our contracts a statement of their basis in the water, as you would in buying a new car or a house. But I will simply find out whether we have that information and share it with the committee, if we do.

Senator **Bradley**. But that information would clearly have to be reported in their income tax return, wouldn't it.

Mr. **Wheeler**. The profit would have to be reported, yes.

Senator **Bradley**. I really appreciate your testimony. Thank you very much.

Mr. **Wheeler**. Thank you.

Senator **Bradley**. It is very helpful and I look forward to seeing you or one of your representatives in California at the end of the month.

Mr. **Wheeler**. You will see us there.

Senator **Bradley**. I take from your presence here today that you feel strongly that these bills should be adopted and moved.

Mr. **Wheeler**. It is a matter of considerable urgency because, as I have tried to explain, the drought is not over by any means. These efforts are ongoing and must continue with the full cooperation of the Federal Government.

Senator BRADLEY. Thank you very much, Mr. Wheeler. We really appreciate it.

Mr. WHEELER. Thank you.

Senator BRADLEY. Our last panel consists of Mayor Sheila Lodge of the city of Santa Barbara, and Tony Willardson, associate director, Western States Water Council.

Welcome to the subcommittee. We are pleased that you are here.

## STATEMENT OF SHEILA LODGE, MAYOR, CITY OF SANTA BARBARA, CA

Mayor LODGE. Thank you very much. I am Sheila Lodge, Mayor of the city of Santa Barbara, and I appreciate the opportunity to appear before you today.

I am here in very strong support, in particular, of section 306 of H.R. 355 and of S. 404—and/or, I should say—which embodies a similar provision. These are bills which would allow the use of Federal facilities of water that is nonproject water and is non-agricultural water.

And if I may, the rest of my written testimony I would like to have made part of the record.

Senator BRADLEY. We will insert your statement in the record.

Mayor LODGE. If I may, I would like to go to the map and I think it will make it easier for you to understand what we are talking about.

Senator BRADLEY. I think that is very good idea. A picture is worth 1,000 words, or at least 100.

Mayor LODGE. There is a small copy of this map attached to my written testimony. What is in blue is the Federal project, Bradbury Dam, which holds back Lake Cachuma. And then the Tecolote Tunnel, which goes through the mountains was an engineering feat in its time, and the South Coast Conduit, which then delivers the water all through the South Coast of Santa Barbara County. Through this area here to Santa Barbara, Montecito, and all the way to Copinteria. These are the urbanized areas of the South Coast of Santa Barbara County.

The city has its own small reservoir up here, Gibraltar Reservoir. It is one that went completely dry a year and a half ago, almost 2 years ago. We did have rain; it was wonderful. The reservoir is spilling still. However, the reservoir, over the years, has been filling with silt.

With some assistance of Federal funding, we did start an experimental program of dredging the silt, a problem of dams everywhere, but there is a limit to places where you can put it, and it was costly. We entered into an agreement with the other contractors to the Lake Cachuma project, and the contractors that protected all of their interests to the water there, to allow us to let the water from Gibraltar, as it slowly fills itself and acts really as a silt-containing basin for Cachuma, to pass it on through Cachuma. To allow it to be stored there and then delivered via the Tecolote Tunnel and the South Coast Conduit to Santa Barbara, obviously using the Federal project and a non-Federal project for municipal water purposes.

That agreement was not to take effect until Gibraltar is spilled. Well, it spilled in March, and we now need to have—right now—we need the ability to have what would be in section 306 of H.R. 355 or S. 404. What they would provide, we need that now.

The city of Santa Barbara is, as you are perhaps aware, building a desalinization plant and so that will be located here and the water for the city will be distributed directly into the distribution system. We have also entered into agreements to sell or at least to build a plant with capacity for Goleta and for Montecito watershed areas on either side of us. The way we would get the desalinated water to those areas would be to pump the water from the desalinization plant up to the reservoir, next to the conduit, and sending it by gravity flow to Montecito and pumping it through to Goleta.

The third reason we need this ability to utilize the Federal facilities is that coming up on June 4th, and there is an election as to whether or not our area is going to join the State Water Project. If we do, it will take some time, but the water ultimately will be delivered into Lake Cachuma and then again the Federal facility will need to come through the Tecolote Tunnel and be distributed the length of the conduit, the South Coast Conduit, which supplies again the non-Federal, nonirrigation water to this area.

It is not anything that would cost the Federal Government anything. We think it makes imminent use of excess capacity and is very practical and very efficient use of the facility. That would only be used, of course, when there is extra capacity, and I urge speedy adoption of that.

[The prepared statement of Mayor Lodge follows:]

### Prepared Statement of Sheila Lodge, Mayor, City of Santa Barbara, CA

I am Sheila Lodge, Mayor of the City of Santa Barbara, California. I appreciate the opportunity to testify before your Subcommittee today, particularly in support of Section 306 of H.R. 355, a provision that enables cities, urban water districts and other organizations to utilize the Warren Act, a 1911 Act permitting non-federal interests to contract for the use of excess capacity in Bureau of Reclamation projects. Senators Seymour and Cranston have introduced S. 404, embodying a similar provision. Santa Barbara has worked in cooperation with the Santa Clara Valley Water District and El Dorado County Water Agency from California and my views in support of the Warren Act provision represent their views.

As your Subcommittee is fully aware, drought has been a serious problem throughout much of the West for the past five years. Cities and communities have had to progressively cut back on water use to preserve precious supplies just to sustain our basic needs.

In Santa Barbara, dead lawns, few flowers and water conservation police have gained national publicity. Rains in March gave us some relief but pointed up how valuable it would be to use the Warren Act for urban needs. The Warren Act is one of the early authorizations for the Bureau of Reclamation, apparently passed at a time when Bureau programs were expected to be used only in farming areas. Its current application is limited to irrigation. That has changed dramatically in California with our substantial population increase and agricultural lands have been converted to residential use in the vicinity of Bureau projects.

Santa Barbara's interest in using the Warren Act is not limited to drought conditions. The authority is necessary on a permanent basis. We would like to use excess capacity in various Bureau facilities to permit us to better conserve and manage our water supplies and avoid having to duplicate what the Bureau has already constructed, eliminating the environmental and financial impacts of new construction.

There are three specific projects facing us which this amendment will facilitate.

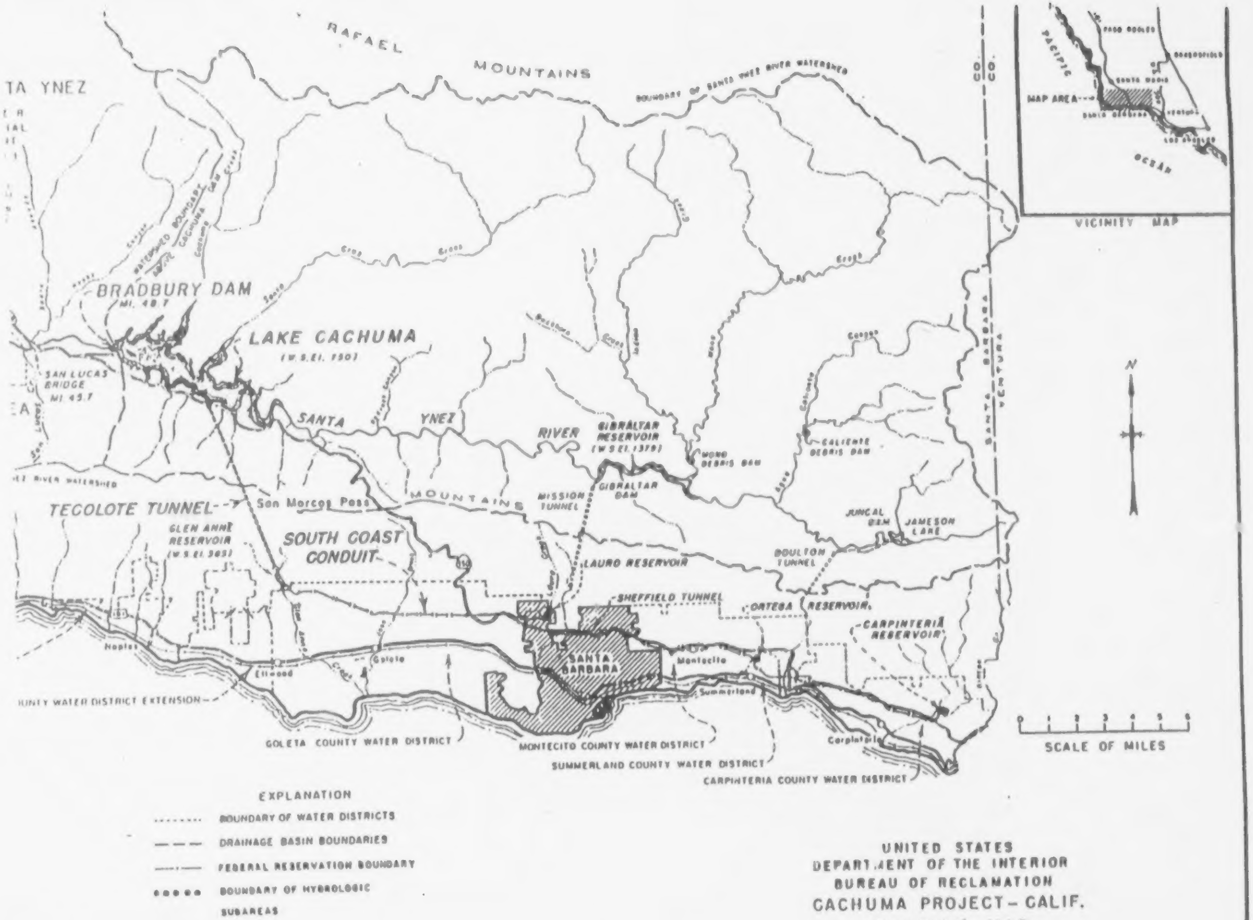
The City's Gibraltar Reservoir on the Santa Ynez River is filling with silt. With Federal financial assistance the City carried out an experimental dredging program to remove some of the silt. This proved to be a very expensive process, disposal sites were limited, and therefore the program could not achieve the necessary results.

The City then planned to raise the dam to restore the reservoir's capacity. To avoid the need to do so, Santa Barbara negotiated an agreement with all the other contractors to the Cachuma Project, a Federal Bureau of Reclamation project, which carefully protects their rights to Cachuma water. The agreement allows the City to pass through Gibraltar water to Cachuma when Gibraltar spills and to then take the water from Cachuma, to which the City is also a contractor. The City's water supply is protected as Gibraltar continues to silt in. This arrangement is illustrated by the attached map. The agreement was not to take effect until Gibraltar spilled. With the heavy rains in March Gibraltar did spill. To fulfill the terms of the Agreement the City needs the Warren Act amendment now.

The City of Santa Barbara is in the process of permitting and building a sea-water desalination plant. We have agreed to build additional capacity to serve Goleta and Montecito, water-short areas to the west and east of the City. To deliver the desalinated water we need to use the South Coast Conduit portion of the Federal project. The desalination plant is expected to be completed by February, 1992. The amendment must be passed this session to enable this use.

Depending on the result of elections on June 4, 1991, the South Coast area of Santa Barbara County, including the City, may decide to tie into the California State Water Project. If the voters opt for State Water, Cachuma Reservoir, the Tecolote Tunnel and the South Coast Conduit will be needed to deliver the water.

This amendment is essential to the implementation of these projects and the future well being of Santa Barbara. Your committee approved similar legislation in 1990 and we ask again for your early approval.


RAFAEL MOUNTAINS
BOUNDARY OF SANTA YNEZ RIVER WATERSHED
TA YNEZ
BRADBURY DAM
MI. 48.7
LAKE CACHUMA
(W.S.El. 750)
SAN LUCAS BRIDGE
MI. 45.7
SANTA YNEZ RIVER
GIBRALTAR RESERVOIR
(W.S.El. 1379)
GIBRALTAR DAM
MONO DEBRIS DAM
CALIENTE DEBRIS DAM
JUNCAL DAM
JAMESON LAKE
MISSION TUNNEL
SANTA YNEZ MOUNTAINS
San Marcos Pass
TECOLOTE TUNNEL
GLEN ANNE RESERVOIR
(W.S.El. 385)
SOUTH COAST CONDUIT
LAURO RESERVOIR
BOULTON TUNNEL
SHEFFIELD TUNNEL
ORTEGA RESERVOIR
CARPINTERIA RESERVOIR
SANTA BARBARA
Montecito
Summerland
Carpinteria
Goleta
Ellwood
Naples
SANTA BARBARA CO.
VENTURA CO.
UNITY WATER DISTRICT EXTENSION
GOLETA COUNTY WATER DISTRICT
MONTECITO COUNTY WATER DISTRICT
SUMMERLAND COUNTY WATER DISTRICT
CARPINTERIA COUNTY WATER DISTRICT
N
0 1 2 3 4 5 6
SCALE OF MILES
PACIFIC OCEAN
PASO ROBLES
BAKERSFIELD
SANTA MARIA
MAP AREA
SANTA BARBARA
VENTURA
LOS ANGELES
VICINITY MAP
EXPLANATION
BOUNDARY OF WATER DISTRICTS
DRAINAGE BASIN BOUNDARIES
FEDERAL RESERVATION BOUNDARY
BOUNDARY OF HYDROLOGIC SUBAREAS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CACHUMA PROJECT – CALIF.
LOCATION MAP

Senator **Bradley**. Thank you very much, Mayor Lodge.
Mr. Willardson.

## STATEMENT OF ANTHONY G. WILLARDSON, ASSOCIATE DIRECTOR, WESTERN STATES WATER COUNCIL, MIDVALE, UT

Mr. **Willardson**. I also will summarize my testimony.

The council is representative of 18 western States. The members are appointed by the governors. We have been involved with drought responsive planning since 1976. We found from that experience that most of the activities that took place were relief measures and not preventative measures. And one of the recommendations that came from western Governors at that time was that States prepackage drought response plans.

In 1986 the council did a summary of State response authority and in 1987 we prepared a model State drought response plan. There are nine Western States now that have standing drought response plans. And all of them have taken extraordinary actions in response to the continuing drought.

This past year, working with the Western Governors and in cooperation with the Bureau of Reclamation and Corps of Engineers, we also met to discuss ways to further improve State drought response planning.

It has been our experience that that needs to be done as a part of a broader State and Federal emergency management and water management programs. We recognize the dependence in our area on regional water infrastructure that has been built with Federal and State cooperation. We hope that that same spirit of cooperation can be incorporated in any Federal response legislation.

We support legislation to define the Federal role and responsibilities and to authorize contingency planning. We are concerned about the impact that that may have on State water rights and their administration and on existing State response activities and response plans.

We believe the western water laws are important. They promote the wise and equitable use of the resource. They also encourage or are a means of balancing private rights and public uses. It is a complex and dynamic institution.

We believe also that States are in the best position to act as a clearinghouse for and also to coordinate private, local, State, and Federal drought response activities.

I think I could quote Senator Seymour. I believe he said it best in introducing his bill, that we need a Federal Government willing to work with us and to assist us and not preempt us. The Secretary of Interior should have broad authority to undertake different activities on a temporary basis in response to drought so long as those activities comply with substantive and procedural State law and interstate compacts and that those activities are, again, consistent with State response plans and activity.

The States are in the forefront of establishing water banks and encouraging transfers. We, and again, believe that the Federal activity should supplement and not disrupt these activities that are already going on at the State level.

With respect to some important points, we agree that the authorities that is granted to the Secretary under the legislation should be implemented only at the request of the governor. And also, to highlight just a couple of points where we have spoken in the past, we do believe that there is a need for a reclamation drought response fund.

In 1988, $25 million was authorized; it was never appropriated. Some opportunities for avoiding impacts of the drought were lost because of that. We think the funding does need to be readily available.

The other point of particular interest to many Western States that I will also speak to is the precipitation management program and technical assistance. We have in the past supported Federal activities in the area of weather modification. A number of States have pledged for cooperative programs of millions of dollars. We think, we support the provisions of the bill in the area of weather modification and believe that that program should be available to all States because there are a number of States who have not in the past participated that have expressed interest.

And, lastly, I would address sections of the bill that we might call savings clauses with respect to Federal and State law and water resources. Our experience with the Federal Power Act, as some of you are aware, has led us to discount what can be done in a savings clause. We think that there is a need in the legislation for an explicit statement that the Secretary of Interior, in carrying out his authorities under the bill, shall comply with all substantive and procedural requirements of State laws and interstate compacts with respect to the acquisition of water rights and administration of the use of water.

I will be glad to answer any of your questions.

[The prepared statement of Mr. Willardson follows:]

## PREPARED STATEMENT OF ANTHONY G. WILLARDSON, ASSOCIATE DIRECTOR, WESTERN STATES WATER COUNCIL

Mr. Chairman and members of the Subcommittee: The Western States Water Council appreciates this opportunity to comment on federal legislation designed to respond to emergency drought conditions in the western United States. Council representatives are appointed by member state governors. We represent eighteen states. The Council has long been actively involved in state and federal drought response activities. During the 1976–77 drought, we staffed the Regional Drought Action Task Force, which included 21 states and federal representatives. That experience led to a Western Governors Policy Office (WESTPO) report which identified what were mostly state and federal drought relief activities, as compared to preventative measures designed to mitigate drought related losses. WESTPO recommended states' prepackage drought response plans.

In 1986, the Western States Water Council prepared a summary of then current state drought response authorities, and in 1987 prepared a model state drought response plan. Nine western states now have standing drought response plans, while the remainder have undertaken a number of extraordinary actions in response to the current and continuing western drought. More recently, in 1990, the Council and the Western Governors' Association (WGA) held a workshop to identify ways to further improve state drought response and planning. Attached to this testimony is a report on the workshop, the WGA resolution that initiated our work in this area, and a summary of state drought response capacity. Our efforts have now been expanded to include issues highlighted by the drought that are intrinsic in water management in the West in general.

The present drought reminds us how precious our limited water resources are for numerable uses. In our experience, drought response and planning must he considered as an integral part of broader state and federal water development and emergency management programs. Over the past five years many areas have come to more clearly recognize their dependence on a regional water infrastructure, which has been built with state and federal assistance. We hope that the same spirit of cooperation will be incorporated in any federal drought response legislation.

We support federal legislation that will help define federal agency roles and responsibilities and authorize contingency planning.[1] However, we are concerned about the impact of any federal initiatives on established state water rights, their administration, and existing state drought response and planning activities. Western states' water laws are an important means of promoting the wise and equitable use of western water resources. They encourage conservation, and provide a means to balance private and public rights to the use of this scarce resource. Western state water law is a complex and dynamic institution which allows states to equitably and efficiently allocate their water resources. Any federal legislation addressing drought response must recognize this important state role. Further, western states are in the best position to act as a clearinghouse and coordinate private, local, state and federal drought response activities.

With respect to the appropriate federal role, Senator John Seymour of California perhaps said it best in introducing S. 711, "We need a federal government willing to work with us and to assist us, not preempt us. . . ." Before we start reallocating the states' water at the federal government's behest, we should be addressing the westwide drought in a manner that respects state laws. I have tremendous confidence in the people of California and the western states and the ability of Governor Wilson and his administration to uphold and enforce the public trust . . . and I believe the federal government should have faith in them as well." With this background, the Western States Water Council supports efforts to encourage federal drought response planning and provide the Bureau of Reclamation with flexible response authority, consistent with state law and interstate compacts.

The Secretary of Interior should have authority to undertake a broad range of drought response activities on a temporary basis, so long as federal agencies comply with substantive and procedural state water law and interstate compacts, and federal activities are consistent with state drought response plans and initiatives.[2] Western states have led the way in establishing water banks and encouraging temporary transfers of water between willing buyers and sellers. State water laws have and will continue to change in response to drought and other water management challenges. Federal activities should supplement and not disrupt innovative state activities. We support explicit language such as in S. 711, Section 3(b) and Section 4(1).[3]

Regarding authority to provide water on a temporary basis to mitigate drought losses and damages, H.R. 355 and S. 586 authorize the Secretary to enter into temporary water service contracts that permit the use of federal facilities for the storage or conveyance of project or non-project water for various uses both within and outside an authorized project service area. Similar temporary authority was enacted in 1988. While the objective appears clear and praiseworthy, there may be some potential for unproductive conflicts with state law that may hinder effective drought response. Again, western states believe federal drought response activities must be undertaken in harmony with state law and interstate compacts.

Emergency federal drought response authority should not be used to unnecessarily obstruct water transfers under private agreements between entities entitled to the use of the water under state law. While recognizing the Bureau of Reclamation's legitimate interest in insuring federal project repayment, temporary contract authority should not be used to require concessions from private interests with proprietary rights to the use of water (to which the U.S. government has no federal reserved or other right under state law). Provisions to avoid such complications should be included in any federal legislation.[4]

The Council supports the requirement in H.R. 355, Section 105 (which is preferable to S. 586, Section 5), that the special programs and authorities proposed shall "become operative" only upon the request of the governor of the affected state or states and the Secretary of Interior's concurrence that such assistance is merited.

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[1] H.R. 355, Section 202; S. 586, Section 2(b); and S. 711, Section 12(b).

[2] H.R. 355, Section 101; S. 586, Section 2; and S. 711 Sections 5-6.

[3] S. 711, Section 3(b), reads: "After a contingency plan is adopted for a State or portion of a State, the Secretary shall exercise authority under this Act in a manner that is consistent with the contingency plan."

Section 4(1), reads: ". . . may, in cooperation with State agencies, establish water banks through which the Secretary, State agencies, and project and non-project water users may buy and sell water consistent with State law."

[4] H.R. 355, S. 586, S. 711 or S. 404.

Further, temporary water service from federal facilities should not change the status of lands regarding ownership and acreage limitations under Reclamation Law.[5] With regard to the price for water delivered under temporary federal contracts,[6] such charges should be limited by the federal agencies, ownership interest in recovering project costs under Reclamation law. To the extent that temporary water service is provided to reclamation project sponsors that are otherwise obligated by contract to repay project costs, no new charges for the storage or conveyance of federal waters should be required. Water for fish and wildlife mitigation purposes should be made available on a nonreimbursable basis.[7]

The 1988 Reclamation States Drought Assistance Act authorized the appropriation of $25M for project loans. Unfortunately, money was never appropriated and the opportunity to avoid or mitigate some of the droughts impacts was lost. Funding must be readily available to undertake timely drought response actions. The Council supports establishing a Reclamation Drought Response Fund within Interior.[8] Sufficient funds should be appropriated to define and carry out the Secretary's responsibilities, consistent with state law, and provide federal financial assistance for effective structural and non-structural activities by non-federal entities. The unobligated balance in the Reclamation Fund is a suitable source from which to appropriate money to capitalize the Drought Response Fund.

The Council also strongly supports technical assistance and the transfer of precipitation management technology.[9] The Council has long urged Congress to continue to fund federal precipitation management activities, and believes that the opportunity to participate in this program should be offered to all interested reclamation states. Our member states have offered millions of dollars in matching funds. Precipitation management is an important factor in many long-term state water management programs, and federal assistance and program support. The validation and transfer of this technology will provide important federal and non-federal benefits.

Lastly, with respect to language regarding the effect of the Act on other laws,[10] it appears that savings clauses, while important, may be insufficient to adequately protect state interests. The Congress should specifically direct that the Secretary of Interior in carrying out his authorities under the Act, "shall comply with all substantive and procedural requirements of state laws and interstate compacts with respect to the acquisition of water rights and administration of the use of water."

Mr. Chairman, we appreciate the opportunity to comment on the important emergency drought response legislation now before your subcommittee. We support the concept of pre-planning and authorizing a more flexible and effective federal response to drought. We support federal assistance and expanded federal drought response authority that is consistent with state water law and state drought response plans.

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## STATE/FEDERAL WATER RELATED DROUGHT RESPONSE WORKSHOP

(Western Governors' Association/Western States' Water Council, April 16–17, 1990, Houston, Texas)

On April 16–17, a group representing 13 states, 6 federal agencies and one locality met in Houston to discuss methods for improving and better coordinating water related drought response. States only met on April 16, with the full group convening on April 17. The meeting was held at the behest of North Dakota Governor George Sinner, WGA chairman and lead governor for water. In the spring of 1989, Governor Sinner directed WGA and WSWC to evaluate state and federal drought response capacity, both to clarity responsibilities and fill in the gaps. Prior to the Houston meeting, a small working group met in January to begin outlining the important issues, and an inventory of federal water related drought response capabilities and a state capacity matrix were compiled. These materials were discussed at the Houston meeting. Final copies are attached.

Five general discussion areas—competing demands; response and mitigation; organization and intergovernmental coordination; defining, monitoring and triggering responses/continuity of response; and assessing impacts/media involvement—were identified by attendees at the state/federal workshop on April 17. The results of these discussions as well as the results of the WGA/WSWC matrix, catalog and earlier working group meeting point toward new ways of looking at and responding to drought. Specific recommendations developed at the workshop include:

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[5] H.R. 355, Section 102(b); S. 586, Section 3(b)(2–3) and 3(c); and S. 711 Sections 7 and 10.

[6] H.R. 355, Section 102(c); S. 586, Section 3(b)(1); and S. 711, Section 6(

[7] H.R. 355, Section 102(d); and S. 711, Section 6(c).

[8] H.R. 355, Section 205; and S. 711, Section 16.

[9] H.R. 355 Section 206; and S. 711, Section 15.

[10] H.R. 355, Section 303; S. 586, Section 9; and S. 711,Section 19.

(1) New uses and values of water, especially environmental concerns and recreation, should be accommodated into planning efforts and more importantly into allocation measures under the prior appropriation doctrine. Fish and wildlife and recreation, especially, generate considerable economic benefits to the states and should receive greater protection from the effects of drought.

(2) States should prepare comprehensive, anticipatory, strategic contingency plans, designed to identify critical areas and prioritize uses of water prior to a drought emergency. This effort should be led by the governor's office with appropriate state, local, tribal, regional and federal involvement. In addition, local and tribal governments should also undertake contingency planning efforts and identity alternate sources of water. This will help alleviate the problem of crisis-oriented drought response which rewards those who didn't plan, or the profligate, by bailing them out.

(3) The appropriate roles, responsibilities and expectations between and among all levels of government should be clearly defined and incorporated into strategic planning efforts. Furthermore, a federal coordinating body, led by the White House with high level representation, is needed to clarify and coordinate the federal effort.

(4) Conservation and efficiency are important water management tools in times of drought; Water which may be conserved or salvaged constitutes an "insurance policy" against future droughts, but not is it is used to facilitate increased development.

(5) The nature of drought and its relationship to overall water management should be clarified. Should drought be considered an emergency, time- and site-specific occurrence or is it a subset of total water management? Should drought response require extraordinary response above and beyond normal management or should management be restructured to accommodate periodic water shortages?

## NEW USES AND VALUES OF WATER

The state meeting on April 16 was held to outline possible discussion areas for the following day and to determine potential small group categories. The discussion among the states was remarkable for the commonality of experience and frustration which was expressed as well as the range of drought impacts beyond agriculture which were identified. Seven of nine states mentioned the important impact on environmental and recreational values. Other categories mentioned included hydropower, municipal use, and wildfire. Yet none of these categories was mentioned as consistently as environment and recreation.

While drought has traditionally been thought of in agricultural terms, with the majority of federal assistance designed to help agricultural producers, the impacts of water shortage range much farther. Given the high economic return of many non-agricultural uses, it is often in the best interest of states to protect these uses from severe depletion. Yet as they are considered "new" uses, their value and protection has not been fully incorporated in many state planning and/or response efforts.

As shown on the attached state capacity matrix developed by the WSWC, only two states, North Dakota and Colorado, have developed drought response action plans for a full-range of uses (agriculture, business/commerce, economics, energy, fish and wildlife, public water supplies, recreation, tourism, water quality and wildfire). Three states, Nebraska, Nevada and South Dakota, have developed plans for agriculture, while Hawaii, Nebraska and South Dakota, have plans for protecting public water supplies. Wildfire plans are in place in Nebraska, South Dakota, Utah and Wyoming. In other western states, response for specific areas of impact is performed on a more ad hoc basis, with solutions designed to meet the crisis at hand.

## STRATEGIC DROUGHT PLANNING

An overarching question asked by a participant at the State/Federal Workshop was "How can communities and regions shape themselves so that they will be the least damaged by droughts?" Strategic contingency planning was the answer arrived at by workshop participants. While strategic planning incorporates important procedural guidelines as presented in traditional plans, it also outlines potential areas of concern and provides information on social and economic values and vulnerabilities, thus giving decisionmakers the bottomline information they need for intelligent and equitable action. The total water allocation picture is taken into consideration, with everything on the table from meeting key environmental regulations, to designing conflict resolution processes to resolve issues between competing demands, to the identification of "problem areas" such as vulnerable communities, inadequate delivery systems, shallow water intakes, shallow wells, inadequate ground water, and critical stream reaches.

In 1987, the Western States' Water Council published a model state drought contingency plan. While the WSWC model does not incorporate all of the issues raised by participants, it offers valuable guidelines and a framework for states to adapt as they begin the contingency planning process. As of April 1990, ten western states had developed written drought contingency plans. The remainder tend to rely on a drought-by-drought, case-by-case crisis-oriented type of response, in many instances the very sort of action which was criticized during the 1976–77 and current droughts. Specific state capabilities are identified in the attached matrix.

### THE IMPORTANCE OF CLEARLY DEFINED ROLES

To a large degree, effective drought response is shaped by expectations and when these expectations are not fully articulated between parties at every level, dissatisfaction and confusion result. Each level of government—federal, state, local and tribal—has a distinct role in planning for drought and avoiding, to the largest extent possible, adverse impacts within a single state and basinwide. Clarifying these roles is a major component of the state strategic planning process. Early involvement of the appropriate state, federal, local, tribal and private interests will facilitate the exchange of information regarding capabilities and the development of clearly defined and understandable responsibilities during drought.

State responsibilities focus on the comprehensive planning effort and immediate response actions. States will set the priorities for response and will develop strategies to most effectively mitigate and prevent crises. Local and tribal involvement during the planning process is essential from the standpoint of local water supply planning and backup municipal supplies. Local and tribal governments also have a role in monitoring and for tailoring assistance and actions to best meet unique needs. Locally developed contingency plans should be actively promoted. The inclusion of private interests and basinwide concerns in the planning process helps ensure that actions taken by one party do not detrimentally interfere with or offset response measures taken by any of the other states or interests.

With regard to federal assistance; opinion ranged from very necessary to irrelevant. Generally, participants value the federal response programs but need more information on how to access them and exactly what requirements they must meet. Overall coordination between federal programs was also delineated as a problem area and it was suggested that a White House drought response group be established to coordinate federal response measures, legislation and requirements. Attendees recommended that the White House lead the effort to avoid "turf battles" between agencies and to emphasize the critical nature of effective drought response and coordinated, non-contradictory actions by the federal assistors. In a related effort, immediately following the WGA/WSWC workshop, the WSWC drought response subcommittee agreed to begin working with the Bureau of Reclamation and the Army Corps of Engineers to sort out their generic roles and responsibilities during drought. This effort should clear some of the confusion and significantly assist states when they seek to involve these federal agencies.

### MEDIA INVOLVEMENT

While not a direct participant in drought response decisions, the media plays an important education and communication role. When state attendees were asked to give examples of drought response success stories, media involvement and public information were frequently aspects of successful response. Whether to provide data to farmers and others making economic decisions based on the availability of water or to generate support for voluntary conservation efforts, attendees stressed that early and active media involvement is crucial to response efforts. It was recommended that the role of the media be defined in the states' strategic plans.

### DROUGHT RESPONSE AND OVERALL WATER MANAGEMENT

The late eighties/early nineties drought has not yet reached the proportions of the drought of the early 1930s or the mid-seventies. Yet judging from comments, questions and recommendations at the workshop, the current drought signals more clearly than either previous extended drought that the way Americans think about and utilize their water resources must change.

Various pressures on the western water system are currently converging to make a scarce resource even more scarce. Indian reserved rights, federal reserved rights, recreational uses, fish and wildlife uses, instream flow needs for quality and social concerns, and other uses, are adding stress to the system at a time when very few, if any, new major water storage projects can be anticipated. While some new structural solutions may be needed, they will probably rely on local funding and will have to meet strict environmental and social challenges.

The realization that the United States will have to become increasingly water efficient in the near future, drought or no drought, raises an important threshold question concerning the relationship between drought and overall water management. Should drought be looked at as an emergency, time- and site-specific occurrence or as a subset of total water management? The nature of drought has made it extremely hard to define and classify. Drought is often looked at as an emergency condition, yet unlike earthquakes, floods and other immediately apparent disasters, drought creeps up, sometimes virtually unnoticed in a perpetually arid region. Traditionally, drought response has incorporated measures above and beyond normal management, but increasingly it seems that measures to improve water use efficiencies will be a critical component in addressing periodic and more frequent water shortages.

The options open for increasing the available water supply—sales, leases, marketing, salvage, conservation, reuse and conjunctive use—are those measures often proposed and implemented during drought. An important point raised at the workshop is that water conserved through these efforts should be saved as an "insurance policy" against drought, rather than to facilitate new development. Utilizing conserved water for additional development cuts into the supply margins and takes away important drought response tools.

### FOLLOW-UP ACTIONS

1. As follow-up to this year's drought work, WGA and WSWC will set up a working group to develop a model for strategic planning for use by states. Interests to be included in this effort are: state water directors, water quality officials, emergency management, agriculture, fish and wildlife interests, the governors' offices, irrigation districts, rural and urban municipal interests, and local, tribal and federal government representatives.

Issues to be covered by the working group as they develop a model plan include:
- identification of critical areas
- assuring that "new" uses and values of water are adequately recognized and that the means are in place to resolve conflicts between competing demands consistent with the public interest
- considering ways within the prior appropriation system to more effectively "share the shortage"
- local planning and the development of backup supplies
- data issues
- media and public information
- intergovernmental/interentity relationships
- basinwide communication and planning.

2. WGA and the WSWC drought response subcommittee will initiate a series of meetings to sort out the roles and responsibilities of various players in drought response. This clarification will also be in preparation for a national review of water policy and coordination in general. Areas of interest include:
- The role and responsibilities of the state
- Basinwide cooperation
- Federal roles and coordination, especially the Army Corps of Engineers, the Bureau of Reclamation, EPA, USGS, National Weather Service and Fish and Wildlife, USDA, FEMA and FERC
- Local roles and planning
- International roles and treaties

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## WESTERN GOVERNORS' ASSOCIATION RESOLUTION 89-012

(Sponsor: Governor Sinner, July 18, 1989, Long Beach, CA)

### A. BACKGROUND

1. In 1988, Governor George Sinner of North Dakota, WGA lead governor on water issues, convened two meetings of a group of state, federal and private sector water managers and policy leaders to discuss the possibilities for improving coordi-

nation between federal water programs and between federal and state water policy. The meeting was prompted by Governor Sinner's experiences in dealing with the drought during the summer of 1988. Based on his experiences and frustrations in this capacity, Governor Sinner had concluded that the present state and federal water governance system promotes divisiveness, decisional gridlock and is becoming increasingly incapable of dealing effectively with growing concerns such as groundwater management, response to public interest considerations and more efficient use of already developed resources.

2. The group reached a surprising amount of consensus regarding water policy coordination and identified an absence of "global thinking" with regard to water governance which results in conflicts in purpose and policy, redundancy of programs, turf battles between agencies, absence of coherent policy articulation and a lack of finality of water decisions as significant problems in the structure of federal water management. These problems were described in a WGA White Paper on Water Coordination, developed to reflect the consensus of the group. While the focus of the group's attention was primarily federal water policy, it was evident that the same problems, to one degree or another, also afflict state water policy. Group members agreed that these problems as well as recommendations for change should be presented to the Bush Administration during the spring of 1989.

3. On May 11, Governor Sinner and members of the WGA Water Coordination Working Group met with Interior Secretary Lujan, other Interior officials and representatives of the Environmental Protection Agency, Office of Management and Budget, the U.S. Army Corps of Engineers and the White House in Washington, D.C. to discuss steps for improving coordination. At this meeting it was agreed that a committee of representatives of the White House, Interior, Corps of Engineers, EPA and WGA would meet again to prepare a plan to address the water policy coordination problem. In addition, attendees decided that a meeting should be held between governors, representatives of drought-impacted states and federal agencies involved in drought to discuss the need for coordination of the water-related aspects of drought response.

4. Responding to drought highlights the need for state-federal water coordination both to prepare for short- and long-term supply shortages and crystallizes all the tradeoffs which are difficult to make—maintaining storage reserves, providing water for offstream domestic and agricultural supply, releasing water for instream hydro-generation and fish and wildlife protection, maintaining stream dilution capacity, and maintaining navigability. On June 6 in Denver, Governors Sinner and Romer met with representatives of western and midwestern states and federal agencies involved in drought response. Areas of concern were identified by attendees, including the need to: clarify and define existing authority and funding for programs; outline the relationships between competing uses; more fully incorporate water quality and public health issues in drought response efforts; discern the effect of drought response on basin-wide interests such as navigation and hydropower, and further clarify the triggering mechanisms and the eligibility standards for those state and federal programs with jurisdiction over water in drought response efforts.

### B. GOVERNORS' POLICY STATEMENT

1. We urge that the federal government, with the assistance of the states, to improve the coordination of federal water programs, both within the federal establishment and with state water programs. How and by what means the coordination of federal water programs should be improved is a matter for consideration by the committee designated at the May 11 meeting. However, we urge that any steps taken to improve water policy coordination be undertaken in a manner to strengthen the input of the states into the implementation of federal water programs, as well as respect state primacy in the allocation of water in the West.

2. Drought remains a matter of great concern to us. In particular, we are concerned with the water-related drought response capacity of the federal government both in the short and long terms. We urge the Bush administration to pay particular attention to coordinating drought programs within the context of its attention to water program coordination generally.

### C. GOVERNORS' MANAGEMENT DIRECTIVE

1. WGA should work with the White House and executive agencies, and Congress to address matters of federal water policy coordination generally. WGA should enlist the assistance of the White House and federal agencies, in the context of the water coordination initiative, in developing strategies to address drought over the long-term.

2. WGA should put together a drought working group to address short-term responses to the drought. In particular, the working group should (a) catalogue drought assistance programs available in the short run, (b) clarify the current status of federal and state responsibilities in responding to a drought, and (c) develop strategies to fill gaps in the panoply of existing federal and state programs to deal with the water-related aspects of the drought.

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## STATE DROUGHT RESPONSE CAPABILITY

### A REGIONAL PERSPECTIVE

(By Tony Willardson, Associate Director, Western States Water Council)

The Western States Water Council has been actively involved in state drought response planning and management for several years. During the 1976–77 drought, western governors designated the Council as the lead agency for regional drought policy and program development. The Council provided the core staff for the Western Regional Drought Action Task Force, chaired by then Governor Richard Lamm of Colorado. The Council also worked closely with the Western Governors' Policy Office (WESTPO). In 1978, WESTPO released a report, *Managing Resource Scarcity: Lessons from the Mid-70's Drought.* Among other things, the report recommended that states "pre-package" drought response plans.

In 1985, the Western States Water Council (WSWC) began a comprehensive review of state authority for drought planning and response. In 1986, the Council released the report, *Western State Drought Management.* The report found Colorado, Montana, North Dakota, Oregon, and South Dakota had specific drought management planning and response documents. The report also found there are many ongoing western state programs for emergency management and water conservation and development that are particularly useful during drought.

In order to assist western states with drought planning and management, the Council prepared a model drought response plan for each state to adapt to its own specific concerns, needs and institutional structure. In 1987, the model plan was completed and sent to each western state, including the governor. Over the past few years, many state officials have found the model to be a useful guide in addressing serious problems related to the recent continuing drought.

In early 1990, the Western States Water Council began a review of current state drought response authority and capabilities. First and foremost, drought response is an individual and local responsibility. However, a timely and effective state government response can minimize losses. Therefore, states must anticipate and prepare for drought. At the request of the Western Governors' Association, the Council prepared the attached matrix as a means of representing state capabilities across the West. The purpose of this paper is to briefly explain the matrix, which of necessity answers sometimes very complex questions with a simple yes or no. State authority or capability to undertake certain actions are represented by a dot.

#### *A. State Authority*

Each state has general emergency response authority under an emergency management act. Further, every western state has some type of water code and issues water use permits. Ten states now have specific drought response plans. These may be part of a general emergency response plan, a state water plan, or some similar planning activity. A number of states have some legislative or administrative authority for drought response, but no specific plan. Most western states encourage water conservation through different programs which may be particularly useful during drought. Moreover, in part in response to drought, a large majority of western states have water development programs to help provide long-range drought protection. Several states may require local drought or water supply contingency plans.

#### *B. Governor's Emergency Powers*

Under general emergency management statutes, each governor has specific powers which include the authority to declare an emergency, often limited to a certain amount of time. The governor may suspend procedural state laws, but not substantive requirements or protections. The governor may issue executive orders with the force and effect of law, and can direct the reallocation of state resources, generally money and manpower, to address emergency needs. In a declared emergency, the governor may take private property (with just compensation)! Food, fuel and other materials are specifically listed. Water is not. However, as a private property right, it appears in an emergency a governor could order water taken and redistributed, with just compensation. However, the question remains unsettled. No governor has yet found it necessary to attempt such extreme action. Lastly, each governor has some, though often limited, contingency funds available for emergency response.

### *C. State Water Law*

In the West, the appropriation doctrine provides a well-established means of addressing water shortages in many states. Water scarcity is common, and drought is not unusual. Despite the duration of the current drought, some states have not found it necessary to undertake unusual actions outside of existing state water law. The appropriation doctrine and variations thereof are the predominant means of controlling surface and ground water use in the West. However, in Nebraska and Texas, absolute ownership of ground water remains with the landowner, and local authorities (not the state) control use. In issuing water use permits, almost every state requires some type of public interest review. Water rights are circumscribed by beneficial use and specific water duties. Some states may be able to redefine beneficial use during drought. Several states statutes establish water use preferences which serve as a guide to resolving competing demands, but even then the dominant principal is "first in time, first in right."

During drought, the certainty western water law provides is particularly important. Almost every state has adjudicated or is in the process of adjudicating surface water rights basin-by-basin. To the extent water rights are well-defined, they are more easily transferred to higher uses during drought. Several states have statutory or administrative authority to expedite water use permits and transfers under certain circumstances. Many states have used such authority during the current drought. Some states can and have waived the usual notice and hearing requirements prior to approving permits and transfers. Moreover, a number of states have enacted legislation or adopted administrative policies specifically designed to encourage transfers among uses or water marketing. Of particular note, Idaho has well established water banks allowing users to in essence deposit and rent out water for a certain amount of time. Idaho's water banks have been active during the current drought. The states of Arizona and California are participating in water banking or conjunctive use programs that store surplus surface waters in ground water aquifers for later use, particularly during drought.

Most states have authority to issue temporary water use permits and approve temporary water transfers. Such actions have been taken in response to the current drought. Every state under the appropriation doctrine prohibits the waste of water, and enforcement increases with drought. Most states can establish special water management areas in which use is more tightly regulated. This authority is important during drought. Again, under the appropriation doctrine, many states have watermasters or commissioners that regulate water use in certain areas, and every state has authority to suspend junior uses. Indeed, during the present drought, some water rights dating back to the 1800's have been cut-off because of shortages. Every state provides municipalities with the power of eminent domain in order to acquire by condemnation, if necessary, sufficient water supplies. However, due process requirements make such action a long-range alternative and not a short-term drought response measure.

### *D. State Drought Response Capacity*

As mentioned, ten states now have some type of state drought response plan. Several more states have taken specific actions in response to drought which parallel suggestions from the WSWC model drought response plan. Summarizing these activities, several states have defined drought and the circumstances which would trigger state response action. Every state affected by drought has established some type of early warning system to monitor water supply conditions. Many states have named a drought coordinator and more have designated a lead state agency responsible for drought planning and management. A majority have created and utilized a drought response center of some type and clearly defined state agency responsibilities.

Only a few states have actually inventoried resources available to respond to drought and established priorities among water uses and needs. Several states have organized task forces to address impacts in specific sectors, such as agriculture or wildfire. A number of states have developed specific action plans for various sectors. Action plans refer to a list of specific things to do to address various drought-related impacts. For example, several states have well established procedures for handling wildfire. Other states have specific plans for addressing agricultural impacts, impacts on public water supplies, fish and wildlife, water quality, etc. To date, only a few states have reached this level of response.

Most states have some type of public information and water education program that can be used during drought. Moreover, most states have some type of local coordination mechanism or forum for cooperating with federal agencies. Often these functions are incorporated under a state's drought response center. Almost every state has access to some emergency funds, though the amounts vary widely. Examples of emergency funds include that available through the governor's office, state emergency management agencies, or state water resource agencies. Contingency funds earmarked specifically for drought are rare. To date, limited funding and manpower are the major constraints on state drought planning and response.

### *E. Problem Areas Identified*

In cooperation with the Western Governors' Association, the Council has sought information from state water resource agencies regarding the extent to which they have identified specific areas with drought-related problems. Three states responded they had identified critical water supply areas, while other states were more specific. A majority, usually through the state departments of health, have identified communities with vulnerable water supplies. Current supply problems for municipalities, as well as agricultural and other water users, include inadequate delivery systems, shallow water intakes and shallow wells, and inadequate availability of ground water resources. A few states have identified critical stream reaches, where low flows create problems for fish and wildlife, as well as reduce effluent dilution capacity.

### *F. Special State Concerns*

Given the current continuing drought, the impact on agriculture is almost universally a special state concern. It was not identified as a specific item on the WGA/WSWC questionnaire to which western states responded, but rather was added by most states. Other special concerns states identified in response to our queries included effluent dilution, federal water rights claims and regulations, hydropower, streamflow levels, particularly for fish and wildlife, concerns with actions taken by adjacent or other basin states, tourism and recreation, salt water intrusion, navigation, and wildfire.

In conclusion, it is evident many states are actively responding to the current drought. Some states might do more, but to date existing authority and ongoing programs have generally been sufficient in most areas to address drought-related impacts. Hopefully, the matrix and this summary will be useful in evaluating opportunities for improving state planning and response capabilities. Again, the most important point is that prior planning and preparation, including "pre-packaged" drought response plans, will help states identify potential problems in advance. States may then address areas of special state concern in a timely and effective manner in order to mitigate or avoid drought-related problems and reduce losses.

## STATE DROUGHT RESPONSE CAPABILITY MATRIX
by the
Western States Water Council
June 8, 1990

| | AK | AZ | CA | CO | HI | ID | KS | MN | MT | ND | NE | NM | NV | OK | OR | SD | TX | UT | WA | WY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. **State Authority** | | | | | | | | | | | | | | | | | | | | |
| General Emergency Response | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Water Use Permits Required | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Standing Drought Response Plan | | | • | • | | | | | • | • | • | | | | • | • | | • | • | |
| Other Drought Response Authority | | | • | | • | • | • | | | | | | • | | • | | | | | |
| State Water Conservation Program | | • | • | | • | • | • | | | | • | • | | • | • | | • | • | • | |
| State Water Development Program | • | | • | • | • | • | • | | • | | | • | | • | • | • | • | • | • | • |
| Require Local Contingency Plan | | • | • | • | • | | | • | | | | | | | • | | • | | • | |
| B. **Governors' Emergency Powers** | | | | | | | | | | | | | | | | | | | | |
| Declare Emergency | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Suspend Procedural State Law | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Issue E.O.s with Force of Law | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Reallocate State Resources | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Take Private Property (water?) | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| Governor's Emergency Funds | • | • | • | • | • | • | • | • | • | • | | • | | • | • | • | • | • | • | |
| C. **State Water Law** | | | | | | | | | | | | | | | | | | | | |
| Surface Water Use Controlled | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Ground Water Use Controlled | • | • | • | • | • | • | • | • | • | • | | • | • | • | • | • | | • | • | • |
| Public Interest Review Required | • | • | • | | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | |
| Redefine Beneficial Use/Duties | | | • | | • | | | | | | | | | | • | • | | • | | |
| Statutory Water Use Preferences | | • | • | | • | | | • | | | • | | • | • | • | • | • | | • | |
| State Basinwide Adjudications | | • | • | • | • | • | • | | • | | • | • | • | • | • | • | • | • | • | • |
| Expedite Permits and Transfers | | | • | | • | • | | • | | | | • | • | • | • | | | • | • | |
| Waive Notice and Hearing | | | | | • | • | | | | | | • | | • | • | | | • | | |
| Encourages Transfers/Marketing | | | • | | | • | • | | | | | | • | | • | | | • | | |
| State Water Banks | | • | • | | | • | | | | | | | | | | | | | | |
| Temporary Water Use Permits | • | | • | • | • | | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Temporary Water Transfers | • | | • | • | • | • | • | | • | • | | • | • | • | • | • | | • | • | • |
| Enforce Waste Prohibition | • | • | • | • | • | • | • | | • | • | • | • | • | • | • | • | • | • | • | • |
| Special Water Management Areas | • | • | | • | • | • | • | | • | | • | • | • | | • | | • | • | • | |
| Water Masters Regulate Use | | | • | • | • | • | • | | • | | • | • | • | | • | | • | • | • | |
| Suspend Junior Uses | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Municipal Eminent Domain Powers | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |

| | AK | AZ | CA | CO | HI | ID | KS | MN | MT | ND | NE | NM | NV | OK | OR | SD | TX | UT | WA | WY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D. **State Drought Response Capacity** | | | | | | | | | | | | | | | | | | | | |
| Drought Defined | | | • | • | | | | | • | | • | | | | • | | | • | • | |
| Triggers for State Action | | | | • | | | | • | • | | • | | | | • | | | • | • | |
| Early Warning System | | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Drought Coordinator Named | | | • | • | | • | • | • | | • | | | | • | • | | | • | • | • |
| Lead State Agency Designated | | • | • | • | • | • | • | • | • | • | • | | | | • | • | • | • | • | • |
| Drought Response Center | | | • | • | | • | • | | • | • | • | | • | • | • | • | | • | • | |
| Agency Responsibililties Clear | | | • | • | • | | • | | • | • | • | | | • | • | • | | • | | • |
| State Resources Inventoried | | | | | | | | | | | | | • | | • | | | | | |
| Water Needs Prioritized | | | • | | | | • | • | | | | | | | | | | | | |
| Impact Task Force(s) Organized | | | • | • | | • | | • | • | • | | | | | • | | | • | • | |
| Action Plans Developed For | | | | • | | | | | | • | • | | | | | • | | | | |
| Agriculture | | | | • | | | | | | • | • | | • | | | • | | | | |
| Business/Commerce | | | | • | | | | | | • | | | | | | | | | | |
| Economics | | | | • | | | | | | • | | | | | | | | | | |
| Energy | | | | • | | | | | | • | | | | | | | | | | |
| Fish and Wildlife | | | | • | | | | | | • | | | | | | • | | | | |
| Public Water Supplies | | | | • | • | | | | | • | • | | | | | • | | | | |
| Domestic | | | | • | | | | | | • | | | | | | | | | | |
| Rural | | | | • | | | | | | • | | | | | | • | | | | |
| Municipal | | | | • | | | | | | • | | | | | | • | | | | |
| Industrial | | | | • | | | | | | • | | | | | | | | | | |
| Recreation | | | | • | | | | | | • | | | | | | | • | | | |
| Tourism | | | | • | | | | | | • | | | | | | | | | | |
| Water Quality | | | | • | | | | | | • | • | | | | | | | | | |
| Wildfire | | | | • | | | | | | • | • | | | | | • | | • | | • |
| Other | | | | • | | | | | | | | | | | | | | | | |
| Public Info/Education Program | | • | • | • | • | • | • | | • | • | • | • | | | • | | • | • | • | |
| Local Coordination Mechanism | | | | • | | • | • | | • | • | • | | • | • | • | • | | • | • | • |
| Federal Cooperation Forum | | | • | • | | • | • | | • | • | • | | | • | • | • | | • | • | • |
| Total State Emergency Funds | | • | • | • | • | • | • | • | • | • | | • | | • | • | • | • | • | • | |
| $1 Million - or more | | • | • | | • | | • | | • | | | | | | • | | • | | • | |
| $500,000 - $1 Million | | | | | | | | | | • | | • | | • | | | • | | | |
| $100,000 - $500,000 | | | | | | | | | | | | | | | | • | | • | | |
| Less than $100,000 | | | | • | | • | | • | | | | | | | | | | | | |
| E. **Problem Areas Identified** | | | | | | | | | | | | | | | | | | | | |
| Critical Water Supply Areas | | | | | • | | | | | | | | • | | | | | | • | |
| Vulnerable Communities | | • | • | | • | • | • | | | • | • | • | • | | | • | • | • | • | |
| Inadequate Delivery Systems | | • | • | | • | | • | | | | • | | | | | • | • | • | | |
| Shallow Water Intakes | | • | | | • | | • | | | | • | | | | | • | • | | | |
| Shallow Wells | | • | | • | • | | • | • | | | • | | • | | | | • | | | |
| Inadequate Ground Water | | • | • | | | • | • | • | | | • | | • | | | | • | • | | |
| Critical Stream Reaches | | | • | | | | | • | | | • | | | | | | • | | | |
| Reduced Effluent Dilution | | • | • | | | • | | • | | | • | | | | | | • | | | |

F. **Special State Concerns**

| | AK | AZ | CA | CO | HI | ID | KS | MN | MT | ND | NE | NM | NV | OK | OR | SD | TX | UT | WA | WY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Effluent Dilution | | | | • | | • | | • | • | | | | | | • | | • | | | |
| Federal Water/Regulation Claims | | • | • | | | | | | • | | | | | • | • | | | | | |
| Hydropower | | | • | | | • | | | • | | | | | • | • | • | | | • | |
| Instream Flows/Fish & Wildlife | | • | • | | | • | | • | • | | • | | • | • | • | | | • | • | |
| Other States' Actions | | • | | • | | | | | | • | • | | • | • | • | | • | | | |
| Tourism/Recreation | | • | | • | | • | | • | • | • | | | • | • | • | • | | | • | |
| Salt Water Intrusion | | | • | | | | | | | | | | | | • | | • | | • | |
| Navigation | | | | | | | | • | | | | | | • | • | | | | • | |
| Wildfire | | | | | | | | | | | • | | | | | | | | | |

Senator **Bradley**. Thank you very much, Mr. Willardson. Let me say to Mayor Lodge that if there was ever a better case for passage of the Warren Act, I do not know what it is. I think it is a classic case. We passed Warren Act language in the Senate last year. Unfortunately, it got stuck in the big water bill. You can be assured that it is a priority of the subcommittee to move amendment of the Warren Act with real dispatch.

Mayor **Lodge**. I appreciate that. I neglected to say that the desal delivery will be beginning in February of 1992. So for that purpose, also, it needs to be adopted this session.

Senator **Bradley**. What is the average price per acre-foot for desalination?

Mayor **Lodge**. We will be paying $1,900 an acre-foot to start with.

Senator **Bradley**. $1,900?

Mayor **Lodge**. Yes. That includes, however, an extremely short amortization period, 5 years. At the end of 5 years the plant will be paid for and the cost drops to half of that, about $950 an acre-foot.

Senator **Bradley**. If you live in your service area, you need to conserve water for the next 5 years?

Mayor **Lodge**. Actually, once the desalinization plant is on-line, the whole point of it is to make us pretty well drought proof. That is the one resource we will have that is not dependent on rain.

And we have been able, by melding our water, obviously the water out of Gibraltar cost us practically nothing, the dam and the tunnel, we have a tunnel of our own from that reservoir that was paid for a long time ago. The costs are higher than they are in many other cases, but still the average barrel is somewhere around, and we just raised the rates, around, between $15 and $20 a month.

Senator **Bradley**. At the end of 5 years, what will the price be?

Mayor **Lodge**. At the end of 5 years it will drop to about $950 an acre-foot. And the new rates are designed to cover the cost of the desalinization plant. We are trying to stabilize our water rates. It does, we are in a funny situation, we are trying to, people in Santa Barbara did a marvelous job, normal water use per year is 16,200 acre-feet. They will have used 9,000 acre-feet this year, a 45 percent cut back.

What we are finding is that people took it on as a challenge to see how little water they could get by on. And we, actually having developed some more extensive sources of water, we need to sell more water in order to pay for them. But I imagine this will come up a bit in any event.

Senator **Bradley**. On behalf of some of my friends in Santa Barbara, when will they be able to start watering their lawn?

Mayor **Lodge**. They can water their lawns now.

Senator **Bradley**. In case they do not know, I will tell them.

Mr. Willardson, let me ask you, in terms of who should pay for moving water and whether the operation and maintenance costs would be included in the purchase price. I understand that users of project water pay operation and maintenance costs. If you are a non-project purchaser of Federal water, I understand you pay only the administrative costs. Do you think that anybody or everybody should have to pay the operation and maintenance costs?

Mr. **Willardson**. Well, I have to speak for myself and not for the States. Obviously, in a contract situation between the Federal Government and an irrigation district, the State has no role. Our basic premise in dealing with cost-sharing at the Federal level is that the user should pay for the benefits that they receive.

Senator **Bradley**. So that would imply operation and maintenance in addition to administrative costs?

Mr. **Willardson**. Yes. But that, there would not be any undue benefit to the Federal Government, either on the other hand because of the drought that the addition cost incurred for moving that water should be paid by those who benefit.

Senator **Bradley**. Do you think that the temporary emergency authority granted to the Secretary in the legislation unnecessarily obstructs water transfers under private agreements between entities entitled to the use of water under State law?

Mr. **Willardson**. We are concerned that it might. There has been at least one instance in the past where a private agreement between two contractors with the bureaus were not allowed to make that transfer or, I should say, refused to sign a contract.

Senator **Bradley**. How can we avoid that? What will we have to do?

Mr. **Willardson**. Well, in this instance, and I am speaking to the State of Wyoming, one irrigation district arranged an agreement to borrow water from another storage in two Federal projects. They already contracted to pay for the water under their agreements as members of those projects. The State engineer approved the transfer and ordered the bureau to release the water. The bureau cited the 1988 act in its contract provisions as a requirement before they could release water.

That is now pending in State court where the State has sued the Bureau of Reclamation over the authority. There is a real question as to who owns the water, The Bureau has a right to store the water, but it has no right to the use of the water, which are granted under State law. Our point, I believe, is that these arrangements have to be done carefully and consistent with State law.

We support, therefore, very much the idea that we need to preplan those kinds of arrangements on a project-by-project basis in cooperation with the State, local, and Federal interests.

Senator **Bradley**. Thank you very much.

Senator Seymour.

Senator **Seymour**. No questions, Mr. Chairman. I just want to thank both Mayor Lodge and Mr. Willardson for their testimony.

I might add, Mr. Chairman, that Santa Barbara in my opinion is on the cutting edge, obviously, with the desal plant, but beyond that, relative to conservation, use of gray water, the whole thing. Of all the communities in California, if one wants to see what the state of the art is, there it is. You are doing a great job.

Mayor **Lodge**. Thank you.

Senator **Bradley**. Thank you very much.

Let me thank both of you for your testimony. Before you go, Mayor Lodge, what is the blended rate? At 1900, 900, and 50, what would be the blended rate? Do you know that offhand?

Mayor **Lodge**. I can tell you what it is. The actual cost of water, delivered water, is $2.70 per 100 cubic feet. And 100 cubic feet is

748 gallons. And—I need to get my calculator. I can figure it out for you.

Senator **Bradley**. Why don't you just drop us a note?

Mayor **Lodge**. I will do that.

Senator **Bradley**. That would be helpful. Let me thank you both for the testimony. I appreciate your coming all this way to share your views. I think it has been a very productive session.

The subcommittee hearing is adjourned.

[Whereupon, at 4:35 p.m. the hearing was adjourned.]

# APPENDIXES

## APPENDIX I

## Responses to Additional Questions

DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
*Washington, DC, July 24, 1991.*

Hon. BILL BRADLEY,
*Chairman, Subcommittee on Water and Power, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.*

DEAR MR. CHAIRMAN: This is in response to your letter of June 14, 1991, requesting answers to a list of questions enclosed with your letter concerning the drought. More specifically, the answers were requested as a follow-up to a hearing held by your Subcommittee on May 15, 1991, concerning four drought bills: S. 404, a bill to amend the Warren Act; S. 586, the Reclamation Drought Act of 1991; S. 711, the Reclamation Drought Relief Act of 1991; and H.R. 355, the Reclamation States Emergency Drought Relief Act of 1991.

Thank you for the opportunity to provide this information for inclusion in the printed hearing record. If you have any questions concerning the enclosure, please feel free to contact Mr. Tom Phillips of my staff at (202) 208-7587.

Sincerely,

DENNIS B. UNDERWOOD,
*Commissioner.*

[Enclosure.]

*Question 1.* Is there a meaningful distinction between a "drought" and a situation where, even in normal years, the available water supply is too small to meet all existing demands? Is there any good reason why we should have special "drought" authorities in a state or project where, even in normal years, supply does not meet demand for agricultural, urban, industrial or environmental?

Answer. Yes, Reclamation makes a meaningful distinction between the two situations that you describe. In relation to Reclamation projects, a drought occurs when precipitation and, thus, storage is too low to meet the demands of the authorized purposes and contractual obligations of the project. Those purposes and contractual obligations provide a well-defined limit to the total project obligations to provide water supplies.

The second situation you describe occurs when demand for water exceeds or grows beyond that for which the project was authorized, designed, and constructed. Reclamation projects are designed and constructed based upon historic precipitation in the drainage basin and the anticipated water demands of those project purposes as authorized by the Congress. Contractual obligations of the project are then based upon a "normal" or average water supply. Anomalies in precipitation are factored into the design of each project to accommodate years of low precipitation. Nevertheless, during extremely low precipitation years or during consecutive years of low precipitation, water supplies may not be available to meet even the minimum levels of demand. Of primary concern during these times are the economic, environmental, and social impacts of water shortages to water users, the surrounding communities, and fish and wildlife resources.

In those situations in which demand has grown beyond that upon which the project was authorized by Federal law and affirmed by State water rights, one of two things must happen. Either a new, long-term water source, through development or reallocation, must be found or the use of water must be reduced to reflect the available supply. Each of these actions falls outside what we understand as the intent of this legislation.

The special drought authorities, as enacted in 1977 and in 1988, provided additional authority to Reclamation to respond to the situation with activities that were beyond the authorized scope of the projects. These expanded activities were in the areas of allowing use of Federal facilities by non-project water users, providing technical and financial assistance, and providing federally supplied water to non-project water users. The need for such special authorities is seen by the project water users, the non-project water users, the State Governments and the Federal Government as being necessary in order to adequately respond to an unusual, emergency, and short-term condition.

*Question 2.* Do long-term water service contracts signed between the Bureau and irrigation districts limit the Secretary's flexibility to meet California-established priorities for water use during drought?

Answer. No. The Central Valley Project water supply extends from a State water right to store, deliver, and beneficially use water. That right would be subject to modification, as would any other State right, by the State under emergency or drought conditions.

*Question 3.* Should fish and wildlife have a lower priority during drought than, say, Federally subsidized crops? Should public resources, like fish and wildlife, suffer in a drought to a greater or lesser degree than private interests?

Answer. Water uses and their priority cannot be viewed as being mutually exclusive. All beneficial uses must be considered and appropriately balanced in accordance with relevant Federal and State laws and other governing documents.

S. 586, the Administration's proposed drought bill, would authorize Reclamation to prepare and implement drought contingency plans. Such planning will allow us to work with local, tribal, and State Governments and the public to develop appropriate, staged drought actions and priorities. Achieving prior agreement on drought actions and priorities will provide for timely decisions and accelerate drought response actions. Decisions that result from the drought contingency planning process need to address all water uses.

*Question 4.* What would you think are "impacts of drought conditions" as used in S. 711 Sec. 4(2) and H.R. 355 Sec. 104(a)? Would this include environmental impacts? Would it include the environmental impacts caused by the operation of a Federal water project during a drought, such as the increased impacts of the Delta pumps on striped bass?

Answer. I would distinguish between the two different sections that you have mentioned. The impacts of temporary drought conditions as used in S. 711 probably would include, but may not be limited to, such things as a reduced water supply to the municipal, industrial, agricultural users, and wildlife refuges, as well as instream flows.

In Sec. 104(a) of H.R. 355, the actions taken to reduce the impacts of a reduced water supply because of drought, are to be evaluated in terms of how these actions might effect the environment, including fish and wildlife resources, or other instream beneficial uses.

*Question 5.* In your opinion, how long is "temporary" in S. 711 Sec. 4(3)? Does allowing the Secretary to make water available for any purpose he "deems appropriate" create a federal standard of beneficial use?

Answer. The section discusses temporary voluntary transfers of project water supplies. These transfers should be limited to one year consistent with Sec. 3(d) of S. 586, the Administration's drought bill. The very nature of a drought, in terms of when it starts, its severity and length, is such that we must address the responses to the changing conditions, on a year-to-year basis.

With respect to creating a Federal standard of beneficial use, the voluntary transfer of water from existing uses or users to other uses or users located inside or outside a project service area "for such purposes as the Secretary deems appropriate" is qualified by the phrase "consistent with State law." Therefore, I do not see this section creating a Federal standard of beneficial use. What is provided is the authority to respond to a temporary condition without being restricted to the geographic limitations or the beneficial use definitions that are contained in the project authorizing acts. It is also important to note that the provisions of this section recognize the voluntary nature of the transfers.

*Question 6.* How many Reclamation projects would benefit from the deferral of repayment of project operations and maintenance costs without interest under S. 711? Isn't the Central Valley Project in arrears on its O&M payments now?

Answer. The language in S. 711 Sec. 9, is such that potentially all Reclamation projects could qualify for the deferral provisions. However, in making the decision on a deferral, the Secretary must determine the financial hardship to the project users caused by drought. The Administration does not support this section which could have significant "Pay-go" implications.

Yes, there are irrigation contractors and municipal and industrial contractors on the Central Valley Project (CVP) currently in arrears on their O&M payments. Consistent with Reclamation's irrigation ratesetting policy, the renewal of the various CVP water service contracts since 1988 requires the collection of O&M costs, including payment of any deficits that may have accrued to some districts, by the year 2030. Reclamation is also in the process of developing a municipal and industrial water ratesetting policy. O&M deficits accruing after October 1, 1985, must be repaid with interest at current Treasury rates pursuant to P.L. 99-546.

*Question 7.* Do you think S. 711 Sec. 4(5) and H.R. 355 Sec. 203(a)(5) include authority to modify facilities to get at dead or inactive storage? Under these same sections, the Secretary is granted authority to "allow" the use of groundwater. What do you think this means? Does the Secretary have regulatory authority over groundwater? Where?

Answer. Utilizing dead or inactive storage is a measure that may be considered under the provisions of both sections. "Increased use of ground water resources for temporary water supplies" is also provided for in both sections. Subject to the availability of the ground water and the specific State requirements, the drilling of wells may be an option that could provide additional supplies of water. The conjunctive use of ground water and surface water supplies is part of the normal operations on some of Reclamation's projects and some National Wildlife Refuges. The regulation of these ground waters is provided by the individual States; we are unaware of any regulatory authority vested in the Secretary. Availability of project power and whether the action is a Federal or non-Federal responsibility would be determined as part of the process.

*Question 8.* What would you say is a "minor structural modification" in the context of Sec. 4(7) of S. 711 and Sec. 203(a)(7) of H.R. 355? Would project contractors have to agree? Who pays? What if fish and wildlife damages are caused solely by the way the project is operated during a drought and thus, fixing the project amounts to mitigation? Shouldn't the project beneficiaries pay in that situation?

Answer. Minor structural modifications might include pumping from the dead or inactive pool of a reservoir by adding low-level pumping plant intakes, removing low-flow sandbars from an intake, upgrading existing dikes for wetlands, or modifying hatchery intakes.

Existing project contractors would only be involved if the actions adversely affect their water supply or would change their repayment obligations.

A minor structural modification would only be considered if it could lead to the reduction of impacts caused by the drought conditions. Therefore, those who would benefit by a reduction in drought impacts would be expected to repay the costs involved in that action, consistent with legislative and procedural policies. The repayment terms and conditions would be determined by the legislative authority that allowed the action.

*Question 9.* In your opinion, what does "facilitate the purchase of water" mean on page 5, Sec. 5(a) of S. 711? Does it mean subsidizing the purchase price? Other financial contribution?

Answer. In the context of Sec. 5 of S. 711, we interpret the term "facilitate the purchase of water" to mean that the Secretary could provide help to assist in the voluntary sale of the water. This could include providing an information base on willing buyers and willing sellers to facilitate bringing the two together and working with the State to develop procedures. This assistance in facilitating the purchase of water by someone other than the Secretary does not include authority to subsidize the purchase or resale of water.

*Question 10.* What could be the purpose of authorizing the Federal government to buy water under S. 711 Sec. 5(a) and H.R. 355 Sec. 101(c)? Why should the Federal government buy water for irrigation or municipal and industrial users? Why not let the individual growers or cities do it?

Answer. The Administration does not support the purchase by the Federal Government of water for resale to irrigation or municipal or industrial users. Sec. 2 of S. 586, the Administration's drought bill, authorizes the Secretary to "provide information or technical assistance to willing buyers in their purchase of available water supplies from willing sellers and the delivery of such water consistent with applicable State and Federal law . . .", and the Administration supports that approach.

*Question 11.* When buying temporary water supplies pursuant to S. 711 Sec. 5(a) and H.R. 355 Sec. 101(c), do you think the Secretary should have the first right to purchase project supplies? Should the U.S. have to compete with other potential buyers, or should the U.S. control the process? Do you think that, under these provisions, a party could buy water from the project for a non-project purpose?

Answer. The Secretary has existing authority to purchase water supplies for fish and wildlife purposes as well as authorized project purposes. The Administration does not support additional authority for the purchase of temporary water supplies by the Federal Government pursuant to S. 711 Sec. 5(a) and H.R. 355 Sec. 101(c). To provide for effective and equitable coordination and to ensure that critical water needs are met during severe drought conditions, it does not appear reasonable that more than one water bank would operate in a local hydrologic area. In working through a water bank system, the sellers would generally (with the exception of individual transactions) have only one buyer.

Reclamation's recent experience with the water bank in California leads us to believe that State or local control of the process, with cooperation of the Department, will provide a very satisfactory outcome. In Idaho, where State law determines the operation of water banks, Reclamation's long-term experience with the State's three water banks has also been satisfactory.

All three bills would allow for the sale of project water for non-project purposes, and the Administration supports that authority.

*Question 12.* What do you think would be the criteria for the Secretary's approval or disapproval of a water purchase agreement as provided in Sec. 5(d) of S. 711?

Answer. No criteria have been developed. However, any such criteria might be based on the following major factors: repayment of project obligations, maintaining the viability of project operations, the physical ability of the project to store and/or deliver water purchases, protecting the environment, and impacts on other uses and users.

*Question 13.* The charges for temporary water supplies are discussed in S. 711 Sec. 6 and H.R. 355 Sec. 102(c). Irrigators get subsidized drought water; everyone else pays full cost. Isn't this just a no interest loan for temporary water supply? Why subsidize water during drought? Shouldn't water cost more during a drought? Why not let growers make private transactions without Federal interest subsidy? Who would repay the Secretary's cost of purchasing non-project supplies for irrigation? Why should drought water supplies for cities, fish and wildlife, hydro, etc. cost more than irrigation?

Answer. Under the provisions of S. 711 Sec. 6(a), water purchased for irrigation from non-project sources would require repayment of all Federal operation, maintenance, and capital costs, without interest, allocable to the temporary supply but not repayment of the purchase cost of the water. Section 6(b) of S. 711 requires repayment of the purchase cost for nonirrigation purposes plus interest charges for capital costs. H.R. 355, on the other hand, would require repayment of the purchase price and interest charges for capital costs for both irrigation and nonirrigation water. S. 586, the Administration's drought bill, requires that the price for water or the use of facilities shall be at least sufficient to recover all Federal costs including capital costs and interest on project irrigation and municipal and industrial water and would not provide new authority for the Federal Government to purchase water.

Provisions within S. 711 and H.R. 355 regarding the costs incurred for water, from any source, to be used for protecting or restoring fish and wildlife resources, including mitigation losses that occur as a result of drought conditions (H.R. 355) and for mitigating damages to non-private fish and wildlife resources caused by drought conditions (S. 711) make such costs non-reimbursable.

Water acquired at a negotiated price during drought will undoubtedly cost more than water purchased at other times. Nevertheless, care should be exercised in comparing water costs. Generally, the cost of water supplied by Federal, State, or local government entities are all based on cost of service. Geographical comparisons of water costs are not true comparisons. For example, the cost of Sacramento River water used in the Central Valley, whether for agricultural or municipal and industrial purposes, will be substantially lower than the cost of the same water conveyed and used in San Diego for the same purposes.

*Question 14.* Are any of the authorities granted to you in the drought bills redundant with authority you already have? Isn't it true that Sec. 12 of S. 711 and Sec. 202 and 203 of H.R. 355—which deal with drought contingency plans—simply restate existing authority? What about authority to provide technical assistance and the transfer of precipitation management technology?

Answer. Reclamation can, under existing authorities, develop drought contingency plans specific to Federal reclamation projects. Reclamation can also provide assistance to others for the preparation of such plans. But, Reclamation lacks authority to implement what might otherwise be valuable drought mitigation measures under existing authorities.

While we recognize the need for cooperative contingency planning, as would be clearly authorized by S. 586, we are very concerned that language, particularly such as that found in S. 711 and H.R. 355 which prescribes in great detail the development and approval of drought contingency plans, would be counterproductive. Given the fact that drought contingency planning inherently must be consensual and cooperative in order to be effective, there is no need to place unreasonable and burdensome statutory requirements or restrictions on their preparation.

The transfer of precipitation management technology is authorized under existing law. Reclamation has in the past participated in this activity in a research mode with local entities.

*Question 15.* As I read S. 711 Sec. 16 the Secretary is authorized to make a profit from the sale of water. Do you read it the same way?

Answer. Sec. 16(b) refers to "excess of the proceeds of the sale of water pursuant to this Act over the costs described in section 6 (a) and (b)." Section 6 (a) and (b) establishes the charges for temporary water supplies delivered pursuant to the Act. Such charges are to be "sufficient" to recover all Federal operation and maintenance and capital costs pursuant to the Federal Reclamation law and to recover interest on capital costs and the purchase price of water in the case of municipal and industrial water purchased by the Secretary. Operation and maintenance costs incurred by the Federal operation and the purchase price of water would be reimbursements and, therefore, are not "profits". Capital and interest costs allocable to the temporary supply repay previous Federal expenditures associated with project construction, and, in that sense, would not constitute a "profit" from the sale of water.

Under S. 586, the price for the sale of water shall be at least sufficient to recover all Federal costs including capital costs and interest on project irrigation and municipal and industrial water, which sets a floor for the price to be paid for such water. This language would allow for greater recovery by allowing for sale of water above cost. In the case of project water delivered to nonproject landholdings in excess of 960 acres, the price would be full cost as defined in the Reclamation Reform Act.

*Question 16.* In the saving clause of S. 586 (Sec. 9) and H.R. 355 (Sec. 303(4)), what do you think the phrase "any right enjoyed under license, lease or other authorization from an Indian Tribe" means?

Answer. This appears to refer to cases in which Indian Tribes have the authority and have arranged for sale or lease of their water to other parties.

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DEPARTMENT OF THE INTERIOR,
FISH AND WILDLIFE SERVICE,
*Washington, DC.*

Hon. BILL BRADLEY,
*U.S. Senate, Washington, DC.*

DEAR SENATOR BRADLEY: This responds to your June 14, 1991, letter regarding the four California drought bills: S. 404, a bill to amend the Warren Act; S. 586, the Reclamation Drought Act of 1991; S. 711, the Reclamation Drought Relief Act of 1991; and H.R. 355, the Reclamation States Emergency Drought Relief Act of 1991. The questions posed in your letter are answered below.

If you have additional questions related to the subject bills, please do not hesitate to contact me.

Sincerely,

JOHN F. TURNER,
*Director.*

[Enclosure.]

*Question 1.* As used in H.R. 355, what do you think "habitat held in private ownership" encompasses? Should the Federal government provide water for privately owned habitat as would be required by this section?

Answer. The primary intent of Section 102(d) appears to be related to managing wetlands that are of primary importance to waterfowl and other wildlife species. The Central Valley of California is one of the most important wintering areas for waterfowl in North America. The complex of state and Federal wildlife refuges in the Central Valley of California provides approximately 100,000 acres of wetlands that are vital to wintering waterfowl in the Pacific Flyway. However, more than 200,000 acres of equally important waterfowl wintering habitat in the Central

Valley are not in public ownership. These privately owned wetlands are retained by their owners for purely aesthetic and ecological reasons or are managed as duck hunting clubs. Many have been created under various Federal programs such as the Farm Bill. Over 45,000 acres of privately owned wetlands are covered by U.S. Fish and Wildlife Service (Service) wetland easements that require the landowner to maintain wetland habitat. The Service has the authority to flood these areas if the landowner should fail to do so.

Without habitat held in private ownership, wintering waterfowl concentrations on the limited acreage of wildlife refuges in the Central Valley would reach levels that could lead to disastrous disease and botulism die-offs. In addition, privately owned wetlands provide a substantial measure of crop-damage control and are a major source of recreation related to hunting and bird-watching.

Protection of wetland habitat in the Central Valley for waterfowl and other migratory birds, threatened and endangered species, and other wetland dependent species of wildlife and fish is clearly in the Federal interest. An important component of the Federal Government's wetland protection strategy for the Central Valley is, and should continue to be, the provision of water to maintain wetlands in private ownership.

The Service believes it is entirely appropriate to provide water for privately owned habitat. Such water should be: (1) provided on a case-by-case basis; (2) available only for habitat management uses approved by the California Department of Fish and Game and/or the U.S. Fish and Wildlife Service; and, (3) provided under long-term management agreements. When considering the appropriateness of providing water for wetland management, the Service and others must consider the possible impacts of such diversions on fish populations. This means that adequate screening is required, water quality of return flows must be appropriate, and diversion timing must be tailored to minimize fishery impacts.

The Service recognizes that there is not an unlimited supply of water in the Central Valley to meet all wildlife and fishery needs while maintaining other beneficial water uses. Ultimately an Environmental Impact Statement needs to be prepared to clearly identify the impacts and tradeoffs among the myriad of options available for improving fish and wildlife resources in the Central Valley.

*Question 2.* Does the Secretary of the Interior have clear authority to execute long-term water service contracts in the Central Valley Project for fish and wildlife purposes? If not, why not?

Answer. The Secretary has general authority under the Fish and Wildlife Coordination Act to protect and conserve fish and wildlife resources in relation to all water development projects. We believe the Secretary has authority, stemming back at least as far as the 1954 reauthorization of the Central Valley Project (CVP), to execute long-term water service contracts for fish and wildlife purposes, such as managing state and Federal hatcheries and refuges. H.R. 355 would provide authority to expand this on-going practice to include executing water service contracts for privately owned fish and wildlife habitat.

Additionally, the Secretary is authorized to contract for the delivery of 47,000 acre-feet of Central Valley Project water to Federal and state refuges in Merced County under provisions of Public Law 83-647, Grasslands Development Authorization Act. Currently, water contracts for these areas are executed on a year-to-year basis. The Service recommends that long-term water contracts be executed in order to optimally manage these important wetlands.

*Question 3.* How could CVP operations have been modified during the past five years of drought to provide additional benefits for fish and wildlife?

Answer. Even with the benefit of hindsight, it is difficult to look back and speculate as to how CVP operations could have been modified during the past 5 years to provide additional benefits to fish and wildlife. Constraints are imposed on the Department because of its pre-existing water delivery responsibilities. We do not know in advance how severe a drought will be nor how long it will last. Drought management, by its very nature, is a speculative effort. The Secretary has suggested legislation (S. 586), endorsed by the Administration, to broadly address California's drought related problems. That bill provides the Secretary with the authority to balance the competing needs for scarce water supplies during times of drought.

In the context of balancing fish and wildlife needs with the needs for other water users, the CVP reservoirs could have had greater storage dedicated to downstream fishery and water quality purposes. Under present operations, CVP reservoirs are drawn down to low levels during the summer irrigation season. As a consequence, there are insufficient supplies of cool water to meet the needs of anadromous fish ascending the rivers to spawn in late summer and early fall. Not only are flows generally insufficient but temperatures are frequently lethal.

For example, during this 5-year drought, reductions in water releases for fishery purposes in the Sacramento, Trinity, American, Feather, and San Joaquin Rivers, as well as decreases in water deliveries to wildlife refuges were not accompanied by decreases to irrigators. Sharing of shortages among all users would have been a more balanced approach. Reductions in springtime exports (especially from mid-April through June) from the Sacramento River/San Joaquin River Delta could have greatly improved survival conditions for most fish species.

Also, without modifying flows, measures could have been taken to better protect migrating fish in the Delta such as intermittently curtailing pumping, closing the Delta Cross Channel gates to fish access (the gates were closed on occasion but not long enough for reasonable fish survival), and controlling irrigation return flows. The Red Bluff Diversion Dam could have been operated more in accord with the 1990-1991 scenario that involves the new fish screens, gates-raised operations, and water temperature manipulation to control fish distribution. All changes suggested above would likely have had some degree of detrimental impact to other water users.

We have learned from the last 5 years of drought and believe S. 586 will allow us to effectively deal with the current drought, as well as similar situations in the future.

# APPENDIX II

## Additional Material Submitted for the Record

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### PREPARED STATEMENT OF EDWARD R. OSANN, DIRECTOR, WATER RESOURCES PROGRAM, ON BEHALF OF THE NATIONAL WILDLIFE FEDERATION

Mr. Chairman, my name is Edward R. Osann, and I am the Director of the Water Resources Program of the National Wildlife Federation. NWF is the nation's largest environmental organization, with affiliates in 51 states and territories and 5.5 million members and supporters nationwide. The Federation has a longstanding interest in the conservation and wise use of the nation's water resources.

#### SUPPORT FOR DROUGHT LEGISLATION

In general, the National Wildlife Federation supports legislation that would provide greater flexibility and responsiveness to the Bureau of Reclamation program during times of drought, and establish more explicit planning requirements for the operation of Reclamation projects during drought events. Indeed, some of these measures would make useful permanent additions to the program.

Nevertheless, we believe that drought relief measures alone are insufficient to remedy the known defects in the Reclamation program that have led to a variety of water related problems throughout the West. Enactment of measures such as S. 484 and H.R. 429 are essential to overcome serious institutional and legal obstacles to improved water management in the Reclamation program.

#### AREAS OF CONCERN IN ONE OR MORE OF THE BILLS

The following issues should be addressed by the committee in fashioning a bill out of the various proposals now under consideration:

*1. Conditions on Purchase of Water By the Secretary*

We support the concept in S. 711 that limits water purchases for resale by the Secretary to that which is made available by reductions in consumptive use. Return flows and wastewater discharges are frequently put to beneficial use by downstream users, and, as in the case of the California Delta, often comprise an essential component of freshwater inflow to wetlands and estuaries.

*2. Price of Water*

During times of scarcity, commodity prices generally rise in our free market economy. Many communities employ increased prices as a water management tool during periods of drought. In our view, the price of water to be sold by the Secretary under the special authority of this legislation should be a full, unsubsidized price. Thus, prices should include a proportionate share of capital costs, rather than simply an appropriate share, which in the past has been interpreted by the Bureau to be as little as no share at all. Also, the government's borrowing costs should be fully included in the capital repayment computation for all water sales, to agricultural and nonagricultural users alike.

*3. Salt Water Intrusion*

The explicit authority to construct "temporary" barriers to prevent salt water intrusion in the Delta must be approached with a great deal of caution. Given the complexities of Delta hydrology and ecosystem dynamics, open-ended construction authority for the Bureau to construct such facilities should be avoided. Requiring a cooperative agreement with the California Department of Fish and Game would be appropriate. However, the costs of such a measure should be considered a project cost and allocated among project purposes, rather than being designated non-reimbursable as proposed in S. 711.

*4. Management and Conservation by the Secretary*

The grant of construction authority to the Secretary in S. 586 is overly broad. The language of H.R. 355 is preferable, since it qualifies this authority explicitly to such temporary facilities as may be useful to mitigate drought conditions and which can be completed within one year after the date of enactment.

*5. Drought Contingency Plans*

Drought contingency plans will be far more useful to water users and public officials alike if they contain these additional elements—

> Each plan should identify the level of reliability of full water deliveries under current physical, operational, and climatic conditions. Additionally, delivery capability during 10-year, 50-year, and 100-year drought events, as well as the drought of record, if different from any of these, should be quantified.
>
> Each plan should identify the method and priority of curtailment of water deliveries that will be employed by the Secretary during times when demands for water deliveries exceed the available supply.

*6. Precipitation Management*

We doubt the advisability of providing new authority for the Bureau of Reclamation to offer Federal funds for weather modification experiments. Bona fide research should be conducted by other Federal agencies with a less obvious programmatic interest in a "quick fix" for the problems of over allocation, inefficiency, and mismanagement of water resources in the West.

*7. Nonapplicability of the National Environmental Policy Act*

We strongly object to any language that would waive the applicability of the National Environmental Policy Act. H.R. 355 originally contained such language, but the House removed it during floor consideration of the bill, after satisfying itself that it was unnecessary.

*8. Shasta Dam Temperature Control*

We recommend that the committee repeal the language of the FY 91 Energy and Water Development Appropriations Bill that makes nonreimbursable those Federal expenditures for power that is purchased from non-Federal sources and delivered to CVP power customers because of occasional thermal restrictions on Shasta Dam power generation.

*9. Loans*

S. 711 would authorize loans to be "repaid under terms and conditions that are consistent with the Federal reclamation law and policy" for the purchase of interim water supplies. By definition, such loans would be on highly favorable terms. For the reasons identified in the discussion of water pricing above, we recommend that this provision not be adopted.

*10. Deferment of Repayment*

In general, no deferment of repayment should be necessary for customers on water service contracts, where charges are made for water deliveries. The committee may wish to ask the Bureau to document the existence of "take or pay" provisions in existing water service contracts, and take action if this practice has been employed. We would support the removal of fixed charges from water service contracts if contractors agree to the recovery of such costs through charges based on water deliveries under terms that are not disadvantageous to the Federal government.

Current law provides a mechanism for deferring payment required by repayment contracts. We have no objection to the inclusion of deferment provisions that are more stringent than current law for repayment contracts.

Thank you for the opportunity to present these views. I would be pleased to respond to any questions the committee may ask.

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## PREPARED STATEMENT OF RONALD R. ESAU, GENERAL MANAGER, SANTA CLARA VALLEY WATER DISTRICT

### INTRODUCTION

I am Ronald R. Esau, General Manager of Santa Clara Valley Water District, and I appreciate this opportunity to present testimony before the Subcommittee. These comments will focus on why the Warren Act of 1911 should be amended to provide for the storage and conveyance of non-project water through federal facilities for municipal and industrial (M&I) as well as fish and wildlife purposes and how doing so will benefit both local water districts and the federal government. At this point I would like to thank Senators Cranston and Seymour for providing leadership on this important Warren Act issue.

I will now provide some background on the District and its water management objectives. The Santa Clara Valley Water District is located in San Jose, California. The District was formed in 1929 and currently supplies water to more than one and one half million people in Santa Clara County, California. The highly urbanized northern portion of Santa Clara County is known as "Silicon Valley" because of the tremendous computer industry that has developed there. In contrast, the southern portion of the county is primarily agricultural, but is rapidly becoming urbanized and increasing in population. The District, in addition to managing a large groundwater basin and ten local reservoirs, holds contracts for the importation of water from the California State Water Project (SWP) and the San Felipe Division of the Federal Central Valley Project (CVP).

California, and Santa Clara County in particular, is now in the fifth year of drought. The District has been severely impacted by significantly reduced local water supplies, and by a 75% deficiency in its imported water supply entitlement from the federal CVP, an 80% reduction in its imported water supply from the State Water Project. and a 25% reduction of other imported water sources. Water rationing was first placed in effect in Santa Clara County in 1988 on a voluntary basis, but became mandatory in 1989 and 1990, and continues in place with a water use reduction program of 25% of 1987 water use. We are now confronted in 1991 with only one third of our overall imported water supplies, and as a result, the Water District Board recently adopted a resolution establishing a mandatory 25% annual water conservation program for 1991 based on 1987 usage. This requires an actual 30% reduction in water use from April through October because of increasing usage during these months. Even with this conservation level, the District required that imported drought supplies be enhanced by at least 50,000 acre-feet in 1991. The assurances of these additional imported drought emergency supplies for our District were recently provided through a combination of hardship water from the CVP, water from the State's Drought Emergency Water Bank and other sources.

The Warren Act of February 21, 1911 provided for the impoundment, storage, and conveyance (wheeling) of non-project water through federal water project facilities for the purpose of irrigation (agriculture). A number of U.S. Bureau of Reclamation projects, including the San Felipe Division of the CVP, provide water for Municipal and Industrial (M&I) uses. However, these projects are precluded from wheeling non-project M&I water because of the absence of an appropriate provision in the Warren Act. We believe it was never the intent of Congress to specifically exclude the M&I usage from impoundment, storage, and conveyance in federal facilities. In 1911 when the Warren Act was passed, the Bureau of Reclamation was simply not providing water for M&I uses. It now is, and the Act should thus he amended.

## THE DISTRICT'S WATER MANAGEMENT OBJECTIVE

A key to improving the overall management of our water supplies, both for over the long term and in meeting drought emergencies, is the ability to wheel non-project water through the facilities of both the SWP and the federal CVP. This was dramatically illustrated in early 1989 when the Bureau projected a 50% deficiency in the District's CVP water supply entitlement.

In response to the projected water shortages, the District successfully negotiated the purchase of 90,000 acre-feet of water from Yuba County, north of the Sacramento-San Joaquin Delta, but was unable to wheel any of this water through the federal CVP facilities because of the Warren Act limitations. Consequently, all of the District's Yuba County water was wheeled through the SWP facilities and was constrained by that system's capacity limitations and the delivery requirements of other SWP contractors. These limitations severely narrowed our opportunities to wheel this and other potential sources of emergency water supply, at a time when much of the CVP had surplus conveyance capacity. A similar situation again exists in that water purchased this year from the State's Drought Emergency Water Bank and Placer County to meet critical needs in Santa Clara County must again be wheeled through the State Water Project (with limited capacity) because of the Warren Act restrictions.

Clearly there is a water management benefit to the District and its constituents to have the capability to store and wheel non-project M&I water through the CVP system. At the same time, the wheeling of non-project M&I water through the CVP system would make more effective use of the existing federal investment and augment the revenue to the United States through the charges provided for in Section 1 of the Warren Act.

While the District is fully prepared to enter into wheeling arrangements with the Bureau in order to convey non-project M&I water through the CVP system. we are concerned that the costs for the use of federal facilities not be excessive, and we respectfully direct the Committee's attention to the original language under Section 1 of the Warren Act which remains unchanged under S. 404, and H.R. 355. We request the Committee's assistance in directing the Bureau that in entering into such arrangements with federal contractors under this provision, to honor the original intent of the law and charge only those fees, ". . . as may be reasonably necessary to cover cost of carriage and delivery of such water through their works, . . ." as is detailed in Section 1 of the Warren Act. Ensuring that this provision is adhered to will go a long way toward equitable treatment of federal contractors and ratepayers who are currently repaying the capital costs of the system over a set period of time under individual water service contracts.

The water management benefits available under S. 404 and Section 306 of H.R. 355 would apply to all non-project M&I water conveyed through the CVP (when capacity is available), improve both the flexibility and the reliability of our system and the CVP, and result in more efficient use of limited water supplies statewide as well as in Santa Clara County. The opportunities for water banking and transfers through the conjunctive use of surface and groundwater supplies are also increased when non-project M&I water can be conveyed through federal facilities. In addition, it would build upon the water transfer and marketing policies established and encouraged by the State. Providing these capabilities will help bring the Bureau's traditional mission up to date to reflect current needs.

## CONCLUSIONS

The language contained in S. 404 and Section 306 of H.R. 355 will enable us to accomplish the objectives and realize the benefits stemming from the update of the 1911 Warren Act which I have cited. I appreciate the opportunity to address you on this important legislative amendment and encourage your endorsement of it. The Committee's efforts to approve this vital M&I clarification as quickly as possible are most appreciated. Thank you.

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